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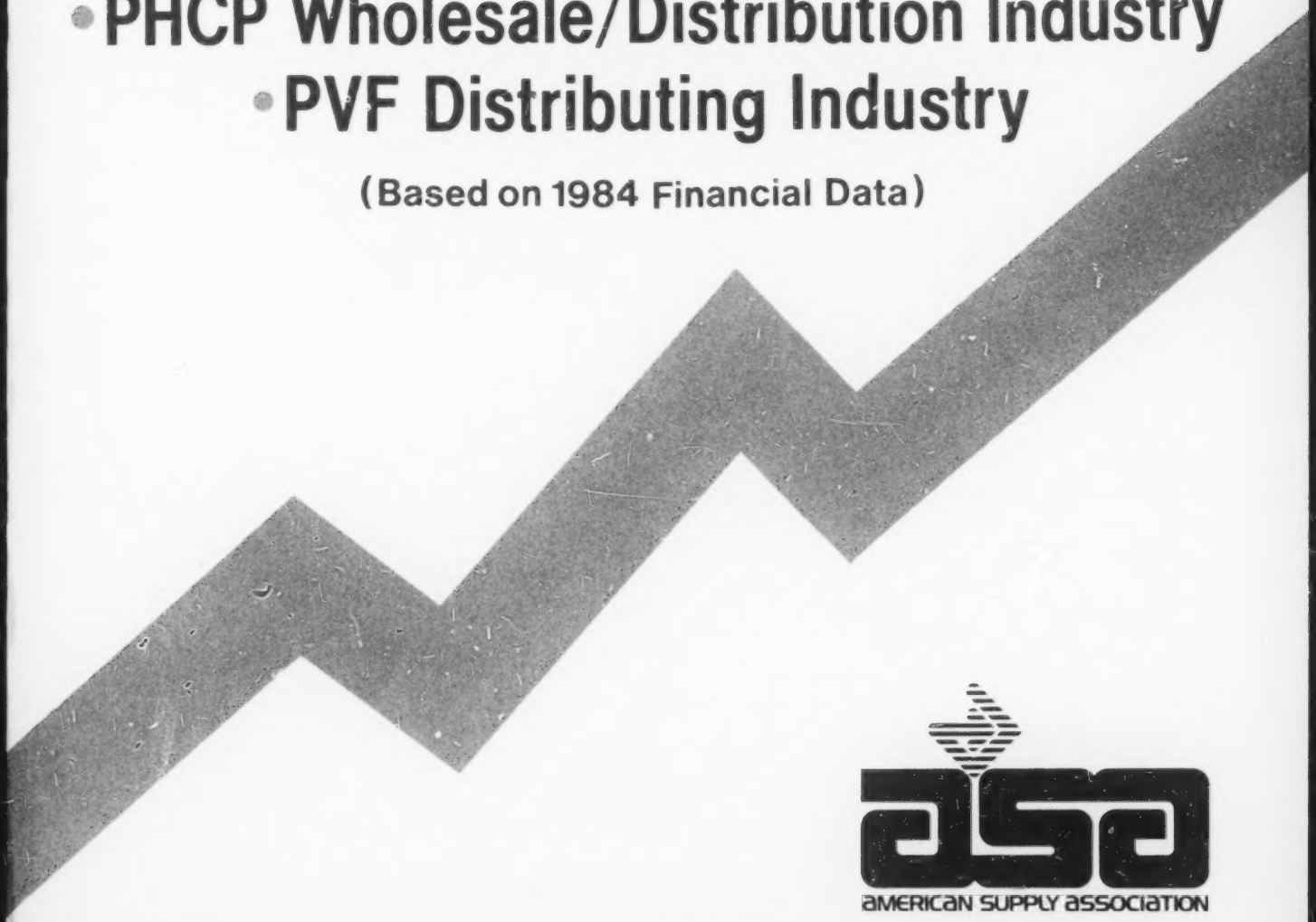
1985 OPERATING PERFORMANCE REPORT

for the

- PHCP Wholesale/Distribution Industry
- PVF Distributing Industry

(Based on 1984 Financial Data)



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For the third consecutive year, the 1985 ASA Annual Operating Performance Report was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and key industry members.

Industry Insights, headquartered in Worthington, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

(ADDITIONAL COPIES OF THE REPORT ARE AVAILABLE FROM THE ASA OFFICE.
JUST CALL (312) 236-4082.)

About This Report

This 1985 American Supply Association Operating Performance Report of the P-H-C-P Wholesaler Industry (Based on 1984 Financial Data) represents the most complete, accurate and up-to-date data base of P-H-C-P wholesaler financial and operating information published anywhere. The information contained in this report is designed to provide easy-to-understand guidelines for identifying business performance improvement opportunities.

For the third consecutive year, the Operating Performance Report (OPR) was prepared by Industry Insights, Inc. of Worthington, Ohio, working closely with the American Supply Association staff. Confidential survey forms (refer to Appendix for sample) were sent to ASA members in late March and 315 completed and usable responses were received.

As in the past, this year's report includes comparative financial ratios and statistics by type of firm, sales volume size, high profit firms and geographic region. While this year's study contains all the same valuable information that was included in past reports, several enhancements have been made.

(1) The accounts receivable aging data has been simplified somewhat to make it easier to understand and use.

(2) A Before Tax Return on Net Worth ratio has been added to the Overall Performance Measures. This should be especially useful if your firm is a partnership or Sub S Corporation.

(3) Certain four year trend data has been included along with appropriate analytical insights and interpretation. This information is important for identifying shifts occurring within the industry which may be representative of future conditions.

Also featured in this year's report is an overall analysis of industry performance relative to U.S. economic conditions, including both sales and profitability results. In addition, a listing of fiscal year-ends is included.

Perhaps the most valuable feature of the ASA Operating Performance Report is that all firms participating in the survey received, absolutely free, a confidential Individual Company Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report, and displayed alongside the appropriate industry comparatives. (A couple representative pages from a sample Individual Company Report are illustrated on the following page.)

As shown on any given line of the Individual Company Report a firm's own data is included along with industry averages for firms of a comparative sales volume, type of business, geographic region, etc. Thus, the individual owner/manager is provided invaluable information without having to spend time and effort making the calculations manually. In addition, for the first time ever, this year's Individual Company Reports included three-year trend data in graphical form for any firm which participated in each of the ASA OPR studies conducted over the past three years.

SAMPLE

Individual Company

Report

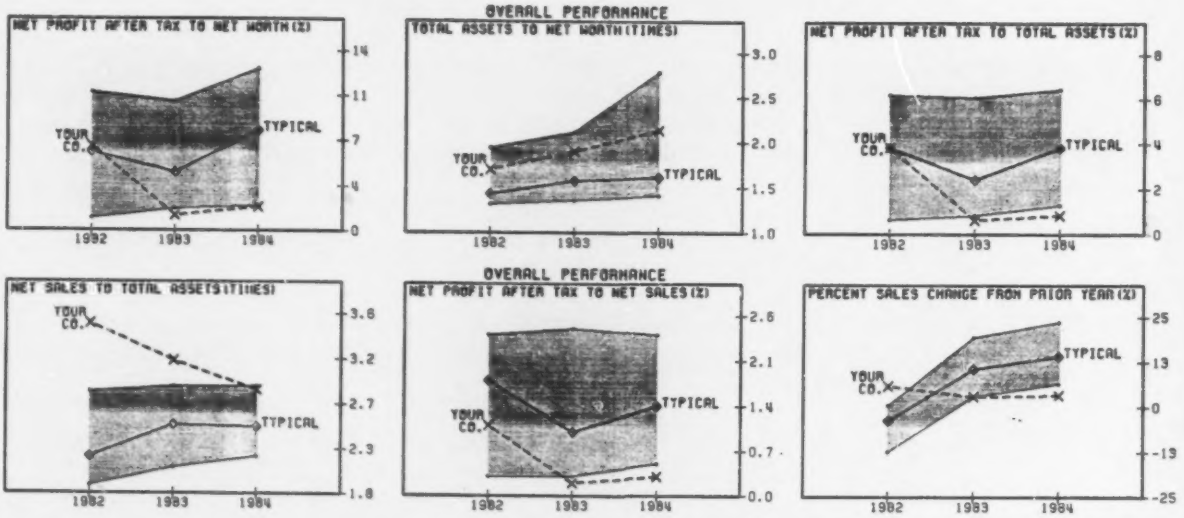
Company No. 500
Net Sales = $2,281,043

1985 ASA OPERATING SURVEY
INDIVIDUAL COMPANY REPORT
(1984 FISCAL YEAR)

SUMMARY PERFORMANCE EVALUATION
Your Firm's Performance Compared to "All Similar Firms"

Overall Performance		
Net Profit After Tax to Net Worth	???? WEAK ????	Investigate Further
Total Assets to Net Worth	???? FAIR ????	Some Concern Warranted
Net Profit After Tax to Total Assets	???? WEAK ????	Investigate Further
Net Sales to Total Assets	>>>> GOOD <<<<	Well Done
Net Profit After Tax to Net Sales	???? WEAK ????	Investigate Further
Sales Analysis		
Percent Sales Change from Prior Year	???? WEAK ????	Investigate Further
Gross Margin		
Gross Margin on Net Sales	>>>> GOOD <<<<	Well Done
Gross Margin on Direct Shipments	>>>> GOOD <<<<	Well Done
Gross Margin on Warehouse Sales	>>>> GOOD <<<<	Well Done
Asset and Financial Management		
Total Debt to Net Worth	???? FAIR ????	Some Concern Warranted
Current Assets to Current Debt	???? FAIR ????	Some Concern Warranted
Personnel Productivity		
Sales Per Employee	???? FAIR ????	Some Concern Warranted
Gross Margin Per Employee	???? FAIR ????	Some Concern Warranted
Payroll to Net Sales	???? WEAK ????	Investigate Further

OVERALL PERFORMANCE



	Your Firm	HIGH PROFIT FIRMS TYPICAL	HIGH PROFIT FIRMS MIDDLE RANGE	YOUR REGION TYPICAL	YOUR REGION MIDDLE RANGE
Overall Performance					
Net Profit After Tax to Net Worth	1.83%	10.62%	7.89 - 15.39%	6.39%	2.36 - 12.54%
Total Assets to Net Worth	2.14 TIMES	1.49X	1.25 - 1.96X	2.19X	1.58 - 3.15X
Net Profit After Tax to Total Assets	0.85%	6.37%	5.25 - 8.55%	2.93%	1.03 - 6.69%
Net Sales to Total Assets	2.84 TIMES	2.48X	2.23 - 3.42X	2.64X	2.07 - 3.04X
Net Profit After Tax to Net Sales	0.30%	2.40%	1.80 - 3.20%	1.40%	0.40 - 2.50%
Net Profit Before Tax to Net Worth	3.74%	16.51%	12.75 - 28.46%	8.17%	4.13 - 19.40%
Net Profit Before Tax to Total Assets	1.28%	10.53%	8.08 - 15.84%	3.76%	1.59 - 8.61%
EBIT to Total Assets	3.00%	13.60%	11.88 - 18.06%	7.89%	5.21 - 11.99%
Sales Analysis					
Net Sales($000)	$2,281	$8,137	$5,808 - 13,699	$4,701	$2,453 - 10,171
Percent Sales Change from Prior Year	3.40%	17.87%	11.07 - 29.67%	16.17%	8.23 - 27.14%
Sales Mix:					
Direct Sales	12.0%	13.5%	4.8 - 23.3%	8.5%	3.0 - 16.7%
Warehouse Sales - Counter and Delivery	88.0%	86.5%	76.7 - 95.3%	90.5%	83.3 - 97.0%
TOTAL SALES	100.0%	100.0%	100.0 - 100.0%	100.0%	100.0 - 100.0%
Product Sales Mix					
Plumbing Supplies & Equipment	%	42.5%	40.0 - 49.5%	47.6%	26.5 - 75.0%
Heating & Cooling Supplies & Equipment	%	17.0%	2.5 - 27.5%	11.8%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	%	29.2%	17.5 - 41.0%	21.8%	1.0 - 21.1%
Other Industrial Supplies & Equipment	%	6.0%	0.0 - 10.0%	6.5%	0.0 - 8.6%
Other Products	%	5.2%	0.0 - 10.0%	12.3%	0.0 - 21.7%
TOTAL SALES	%	100.0%	100.0 - 100.0%	100.0%	100.0 - 100.0%
Gross Margin					
Gross Margin on Net Sales	25.2%	23.4%	20.4 - 25.6%	25.7%	23.2 - 28.4%
Gross Margin on Direct Shipments	11.0%	10.0%	7.9 - 12.9%	12.2%	9.3 - 16.7%
Gross Margin on Warehouse Sales	27.1%	25.9%	23.8 - 28.7%	27.2%	23.3 - 29.9%
Asset and Financial Management					
Current Asset Turn (Sales/Current Assets)	3.14 TIMES	3.31X	2.49 - 3.81X	2.99X	2.41 - 3.54X
Total Debt to Net Worth	114.1%	49.2%	25.8 - 96.1%	116.0%	58.0 - 210.1%
Current Debt to Net Worth	80.8%	49.2%	25.6 - 74.6%	68.9%	45.9 - 145.3%
Current Assets to Current Debt	2.40 TIMES	2.79X	1.96 - 3.97X	2.43X	1.60 - 3.49X
Current Assets Minus Inventory/Curr Debt	0.75 TIMES	1.45X	1.03 - 1.84X	0.95X	0.64 - 1.36X
Invoice/Transaction Data					
Billing Lines Per Invoice	6.3	5.9	5.0 - 8.8	5.0	3.9 - 6.5
Average Invoice Size	$109	$171	$133 - 282	$132	$87 - 206
Average Billing Line	$17.28	$30.03	$18.06 - 51.06	$29.74	$16.01 - 45.75

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P-H-C-P Wholesaling --
Overview of Industry Performance 1984

The U.S. economy continued to show healthy growth in 1984. Gross national product (GNP), which is the overall measure of production of goods and services in the economy, rose 6.8% in 1984 after adjustment for the elimination of inflation. This was almost twice the growth experienced in 1983. The growth of the economy, however, continued to moderate throughout 1984 and reached an annualized rate of 3.4% in the first quarter of 1985. Most sources expect very moderate growth throughout 1985 and into 1986.

1984 Sales Performance

The sales of wholesalers of hardware, plumbing, heating, air conditioning and refrigeration equipment and supplies expanded right along with the economy in 1984. According to data published by the U.S. Census Bureau, sales for this wholesale group increased 15.1% in 1984 compared with 10.4% in 1983. As was the case in 1983, the 1984 sales of hardware, plumbing, heating and cooling wholesalers outstripped the sales growth of all merchant wholesalers as a group (13.6%).

This rapid sales growth has slowed somewhat in 1985. Sales of hardware, plumbing, heating and cooling wholesalers grew 10% for the first four months of 1985 compared to the same months in 1984.

The U.S. Census Bureau revised its wholesale sales figures for the period 1975 through 1984. The revision of sales data now seems to have become an annual project of the Bureau, so sales growth figures appearing in this year's report may not exactly match the same years' data published in previous ASA Operating Performance Reports. In most cases, the revisions did not cause significant changes.

ASA members experienced a 15.2% sales increase in 1984, extremely close to the 14.1% reported by the Census Bureau. Industrial P-V-F firms showed the best growth in 1984 (20.1%) as compared to the lowest (-6.8%) in 1983. Sales growth of wholesalers of plumbing equipment and supplies, those with a strong commitment to both plumbing and industrial P-V-F and those emphasizing HVAC and other products all displayed sales growth of between 14.2% and 14.7%.

In all four product emphasis groups, the largest volume companies grew most rapidly. The growth superiority of the large companies was most evident in the plumbing equipment and supplies category and the combined plumbing and industrial P-V-F emphasis group. There was not very much difference in growth rates among size categories in the industrial P-V-F group. By far, the lowest growth was turned in by the small firms with a combined plumbing/industrial P-V-F emphasis.

Exhibit 1
Growth of Hardware, Plumbing, Heating and Cooling
vs. All Wholesale Sales

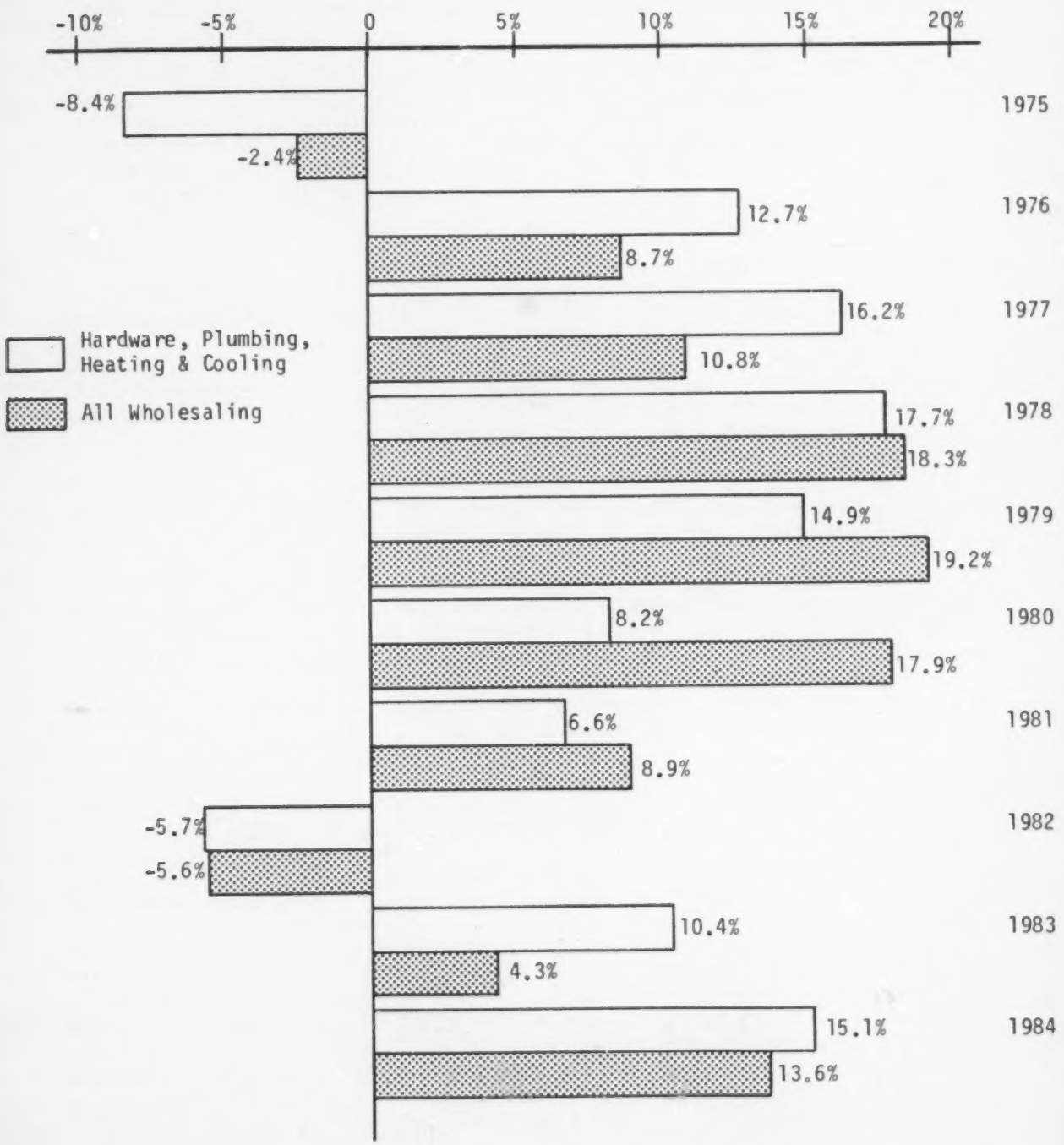


Exhibit 2
1984 Median Sales Growth

All P-H-C-P Wholesalers	15.2%
By Product Emphasis	
Plumbing Equipment and Supplies	14.7%
Industrial Pipes-Valves-Fittings (P-V-F)	20.1
Plumbing and Industrial P-V-F	14.2
HVAC and Other Emphasis	14.6
By Sales Volume	
Plumbing Equipment and Supplies:	
Sales Less Than $3 Million	13.1%
Sales $3 Million to $7 Million	14.0
Sales $7 Million to $12 Million	13.2
Sales Over $12 Million	18.2
Industrial P-V-F:	
Sales Less Than $4 Million	19.1%
Sales $ 4 Million to $12 Million	21.0
Sales Over $12 Million	21.4
Plumbing and Industrial P-V-F:	
Sales Less Than $3 Million	1.9%
Sales $3 Million to $7 Million	17.3
Sales Over $7 Million	20.5
HVAC and Other Emphasis:	
Sales Less Than $3 Million	11.0%
Sales $3 Million to $8 Million	13.1
Sales Over $8 Million	15.3

1984 Profitability Performance

The overall profitability of P-H-C-P wholesalers improved in 1984 along with higher sales growth. Return on net worth for the typical company participating in the ASA survey was 8.2%, up from 6.3% in 1983 and 3.8% in 1982. As was the case in 1983, plumbing equipment and supplies wholesalers were most profitable in 1984 while industrial P-V-F wholesalers were least profitable. All four product emphasis groups improved their return on net worth in 1984 over the previous year.

In general, the larger companies exhibited the highest returns on net worth in 1984. The medium size group showed the highest profitability in the combined plumbing/industrial P-V-F category but the largest volume groups led the other three.

Exhibit 3
1984 Median Return on Net Worth

All P-H-C-P Wholesalers	8.2%
By Product Emphasis	
Plumbing Equipment and Supplies	9.8%
Industrial Pipes-Valves-Fittings (P-V-F)	5.7
Plumbing and Industrial P-V-F	7.8
HVAC and Other Emphasis	6.9
By Sales Volume	
Plumbing Equipment and Supplies:	
Sales Less Than $3 Million	9.9%
Sales $3 Million to $7 Million	8.9
Sales $7 Million to $12 Million	8.7
Sales Over $12 Million	13.5
Industrial P-V-F:	
Sales Less Than $4 Million	5.1%
Sales $ 4 Million to $12 Million	5.8
Sales Over $12 Million	6.4
Plumbing and Industrial P-V-F:	
Sales Less Than $3 Million	1.5%
Sales $3 Million to $7 Million	8.5
Sales Over $7 Million	7.8
HVAC and Other Emphasis:	
Sales Less Than $3 Million	6.4%
Sales $3 Million to $8 Million	6.1
Sales Over $8 Million	8.7

P-H-C-P Wholesaling--1974 - 1984

Over the period 1975 to 1984, the sales of hardware, plumbing, heating and cooling wholesalers have grown at a compound annual rate of 10.4%, the same as wholesale trade as a whole. This rate is somewhat lower than other forms of durable goods wholesaling, but is only 1% shy of the "all durables" growth rate.

Exhibit 4
Annual Wholesale Sales Growth
1975-1984

All Wholesale Trade	10.4%
All Durables Wholesalers	11.4
Electrical Goods	15.9
Motor Vehicles and Automotive Equipment	13.1
Furniture and Home Furnishings	13.1
Machinery, Equipment and Supplies	10.3
Hardware, Plumbing and Heating Equipment	10.4

As the graph below indicates, the U.S. economy expanded somewhat rapidly in 1984 after recovering from the recent recession. This graph plots "real" growth in GNP, i.e., after the effects of inflation have been removed. It is very important to remove the impact of inflation from any numbers that are being compared over a long period of time since the inflation rates have varied drastically from year to year since 1974.

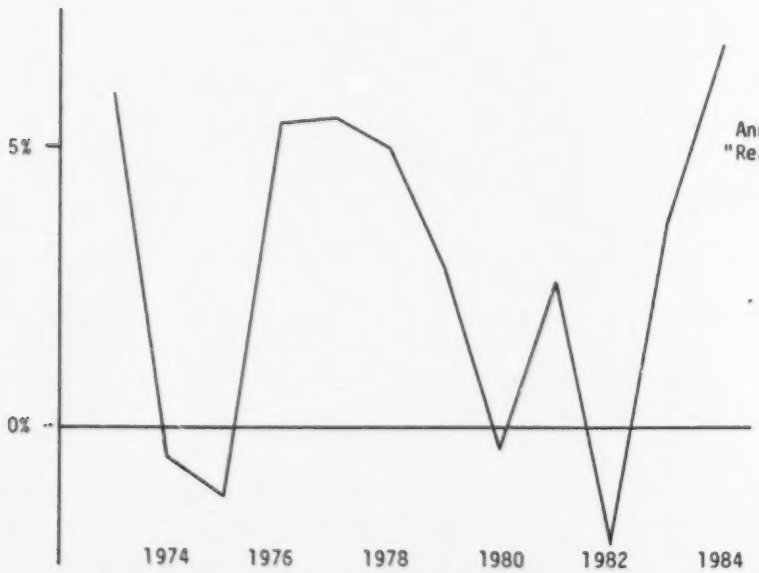
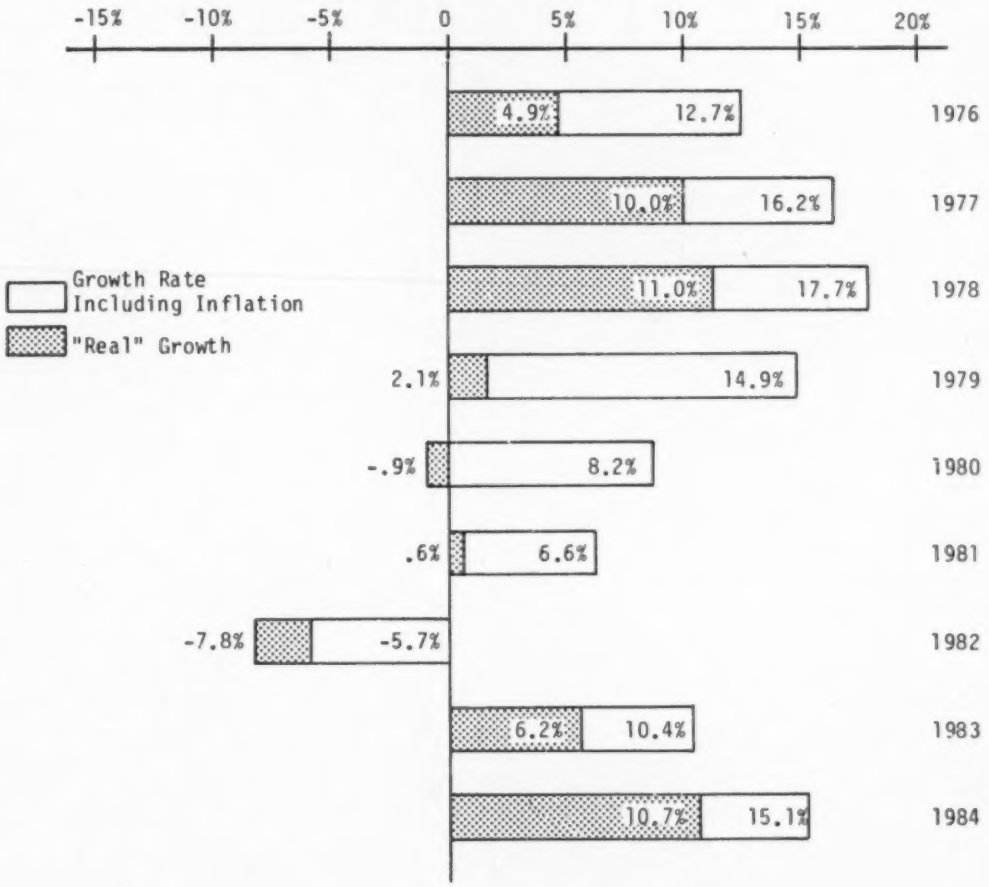


Exhibit 5
Annual Percent Change in
"Real" Gross National Product

Not only must this be done when examining growth in the overall economy (GNP) but also when tracking individual industries. The graph below presents both nominal and real (inflation-adjusted) sales growth for P-H-C-P wholesalers for the period 1976-1984.

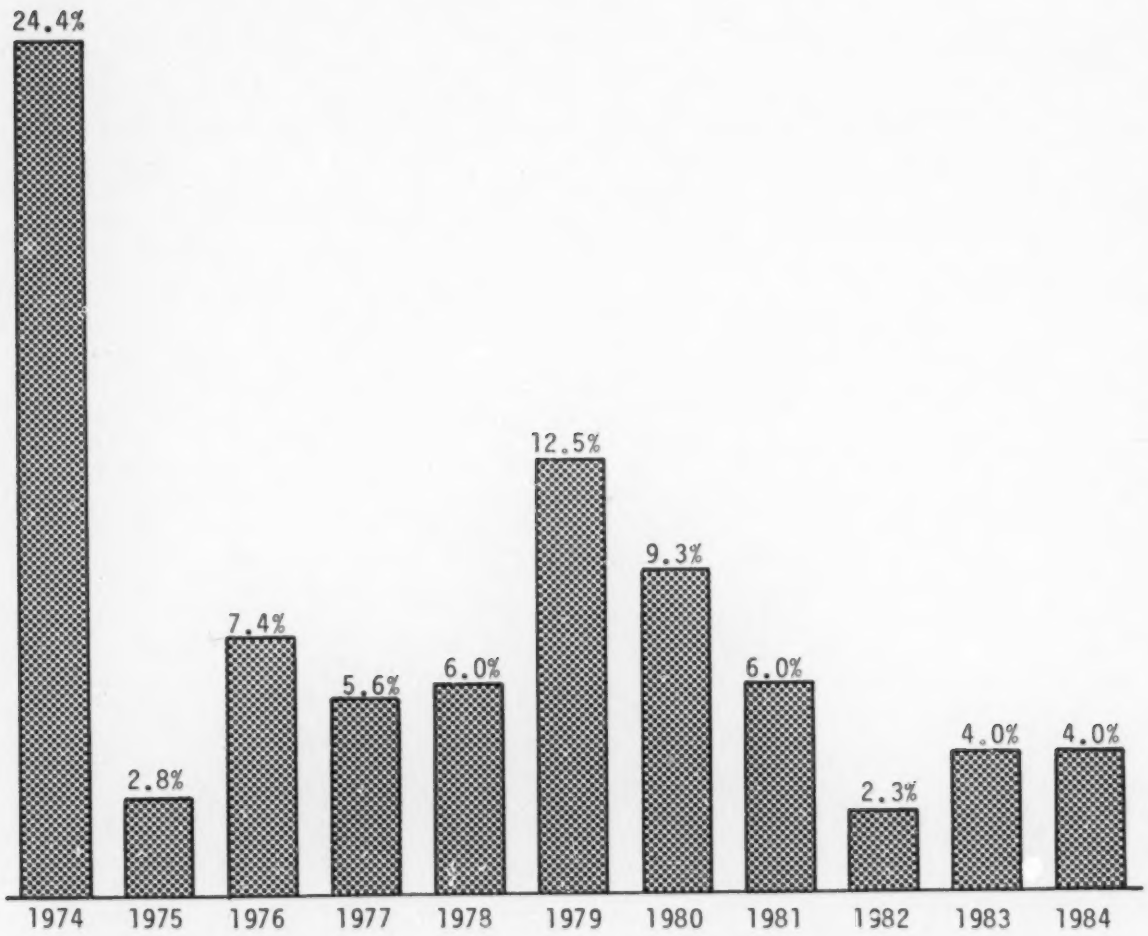
It immediately becomes evident that 1983 and 1984 really were good years, as were 1977 and 1978. Examining real sales growth also provides insights into the 1980-82 period, which was one of negative real growth. If the past growth cycle holds true, it might be anticipated that 1985 and 1986 will be years of moderating growth.

Exhibit 6
Growth of P-H-C-P Wholesale Sales
1976-1984



One of the positive aspects about P-H-C-P wholesaling in recent years is the low rates of inflation that have been experienced. According to the industry price index constructed by Alan Silver and Associates and published in The Wholesaler, inflation was 4% in 1984. This is identical to the rate in 1983. The Silver/Wholesaler price indices for the years 1973 through 1984 appear below. These figures were used to deflate the P-H-C-P industry sales figures in the previous graph. It is easy to see how inflation has moderated since the "double digit" year of 1979.

Exhibit 7
The P-H-C-P Wholesaler
Price Index



Source: Alan Silver & Associates, Inc. and The Wholesaler.

How To Use This Report

The 1985 ASA Operating Performance Report of the P-H-C-P Wholesaler Industry has been designed to help P-H-C-P wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance "yard-sticks" against which a company's performance can be measured.

Using this information P-H-C-P wholesalers can compare their own firm's financial and operating performance with the industry as a whole; with firms having the same areas of product emphasis; with firms of a comparable sales volume and/or geographic region; and with the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that deviations from industry norms do not automatically call for some action on your part. The most important thing to do is to be able to explain why your firm experienced significant deviations from the "typical" wholesaler in the industry.

In order to obtain maximum advantage from the information contained in this report while at the same time minimizing your analysis time and effort, we recommend you follow the step-by-step approach outlined below.

Step 1: Collect the Necessary Company Data

The first step in using this report is to gather all your financial and operating results for your 1984 fiscal year. Most of the needed data can be obtained from your company accounting records, but a small amount will have to be extracted from other sources, such as personnel files, advertising records and the like. If you participated in the 1985 P-H-C-P wholesaler Operating Performance Survey, this step has probably already been done.

Step 2: Calculate the Ratios

The second step is to compute all of the various performance measures for your firm that are included in this report using the data gathered in Step 1. It is extremely important to calculate these ratios using the same formulas which were used to produce the ratios in this report. These formulas, along with sample calculations of each measure, appear in the section of this report entitled, "Ratio Definitions and Sample Calculations," located in the Appendix.

Companies which participated in the survey and filled the survey form out completely received, absolutely free, a confidential computer printout of their own firm's financial ratios calculated and formatted in a manner that is consistent with the information in this report. Thus, for those firms, Step 2 has already been completed for them in an accurate, time saving manner. P-H-C-P wholesalers that did not participate in the 1985 survey should strongly consider doing so in 1986.

Step 3: Compare the Results

Next, compare your company's performance with the survey results of other firms in the industry. As you do so, several points should be recognized:

(1) A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required. As a rule, the larger the difference, the greater the need for further investigation.

(2) In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

(3) The information in this report should be used as guidelines rather than absolute standards. Since firms differ as to their product emphasis strategy, location, size, and other factors, any two firms can be successful, yet have very different experiences with regard to certain performance measures.

Understanding the Data

In order to use the information in this report to maximum advantage, it is important to understand what the numbers mean and how to interpret them.

How The Tables Are Organized -- The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

° All Reporting Firms -- refers to the results of all firms responding to the survey.

° Product Emphasis Group:

-- Plumbing Supplies & Equipment Firms -- those firms that derive over 50% of sales from plumbing products.

-- Industrial P-V-F Firms -- those firms that derive over 50% of sales from Industrial P-V-F products.

-- Plumbing Supplies & Equipment and Industrial P-V-F Firms -- those firms that derive more than 50% of sales from plumbing and industrial P-V-F products combined but less than 50% from either category alone.

-- HVAC & Other Emphasis Firms -- those firms that cannot be classified in any of the above three groups; or those companies that derive less than 50% of sales from combined plumbing supplies and equipment, and industrial P-V-F.

- Product Emphasis Group by Sales Volume Size:

  -- Plumbing Supplies and Equipment Firms with Sales Under $3 Million
  -- Plumbing Supplies and Equipment Firms with Sales $3-7 Million
  -- Plumbing Supplies and Equipment Firms with Sales $7-12 Million
  -- Plumbing Supplies and Equipment Firms with Sales Over $12 Million

  -- Industrial P-V-F Firms with Sales Under $4 Million
  -- Industrial P-V-F Firms with Sales $4-12 Million
  -- Industrial P-V-F Firms with Sales Over $12 Million

  -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Under $3 Million
  -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales $3-7 Million
  -- Plumbing Supplies & Equipment and Industrial P-V-F Firms with Sales Over $7 Million

  -- HVAC & Other Emphasis Firms with Sales Under $3 Million
  -- HVAC & Other Emphasis Firms with Sales $3-8 Million
  -- HVAC & Other Emphasis Firms with Sales Over $8 Million

- By Geographic Region:

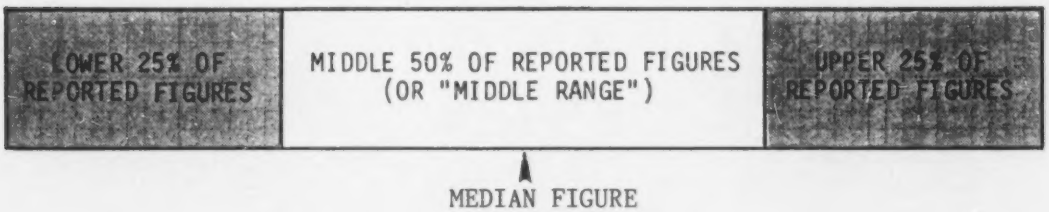
  -- New England (CT, ME, MA, NH, RI, VT)
  -- New York (excluding NYC)
  -- Long Island and Metro NYC (however, data was insufficient to include ratios in this report)
  -- Middle Atlantic (DE, Eastern PA, MD, NJ, DC)
  -- East Central (IN, OH, Western PA, WV)
  -- Southern (AL, FL, GA, KY, MS, NC SC, TN, VA)
  -- Michigan (excluding Upper MI)
  -- Metro Chicago and Northern IL
  -- Mid-America (IA, Southern IL, KS, MN, MO, NE, ND, SD, Upper MI, WI)
  -- Louisiana, Texas, New Mexico, Oklahoma and Arkansas
  -- Rocky Mountain (CO, ID, MT, UT, WY)
  -- Pacific Northwest (AK, OR, WA)
  -- Northern California, Northern Nevada, and Hawaii
  -- Pacific Southwest (AZ, Southern CA, Southern NV)

- By Product Emphasis Group by High Profit Firms:

  -- High Profit Plumbing Supplies & Equipment Firms
  -- High Profit Industrial P-V-F Firms
  -- High Profit Plumbing Supplies & Equipment and Industrial P-V-F Firms
  -- High Profit HVAC & Other Emphasis Firms

Interpreting the Numbers -- Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was independently selected from its own array of figures. As a result, component figures of an item may not necessarily total 100 percent and normal mathematical relationships do not always exist. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Middle Range." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Middle Range" are simply the upper and lower quartiles respectively for that ratio.



Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that even relatively simple analysis of your company's own financials using the industry data for comparison, can yield important insights into your business. You do not have to be a financial expert to benefit from this information.

1985 ASA OPERATING

PERFORMANCE SURVEY

DETAILED RESULTS

Executive Summary of Survey Results

The complete set of detailed tables showing results from this year's ASA Operating Performance Survey of the P-H-C-P Wholesaler Industry is included on pages 31 through 151 of this report. Based on the in-depth financial and operating information provided, many insights can be gained regarding industry performance characteristics experienced in 1984. Some of the highlights are provided here. In particular, the information which appears on the next several pages has been abstracted from the comprehensive set of complete statistics and represents good overall gauges of P-H-C-P wholesaler experiences in 1984.

1981-1984 Performance Comparison

Once again, an important feature of the annual ASA Operating Performance Report of the P-H-C-P Wholesaler Industry is to report industry trade data. Such information can be an invaluable input for understanding where the industry has been, and for anticipating which direction it is likely to go in the future.

This year's study shows important changes that have occurred in the financial and operating performance of P-H-C-P wholesalers over 1981-1984. Essentially, this represents a period of transition from severe recession (1981-82) to rapid recovery (1982-83) to strong and sustained business expansion (1983-84). Exhibit 8 shows the impact of these business cycle conditions on P-H-C-P wholesaler financial performance over each of the past four years based on a number of key performance indicators.

Productivity Management -- For any P-H-C-P wholesaler, an important determinant of profitability is the efficiency or productivity with which the company operates. As a general rule, the companies that are the most profitable each year are those that are also the most productive. This relationship tends to be true regardless of company size, type of product emphasis, geographic area, or economic conditions.

For P-H-C-P wholesalers, the particular areas of productivity management that tend to be the most important are inventory and personnel. Based on the four year industry-wide results shown in Exhibit 8, several observations are useful:

- In 1984, P-H-C-P wholesalers (in the aggregate) reported a significant decline in payroll and fringe benefits expense as a percentage of net sales, dropping to 13.7 percent as compared to 14.1 percent in 1983 and 14.5 percent in 1982. This decline was experienced by each of the various product emphasis groups except "Industrial P-V-F Firms," which showed an increase in payroll expenses as a percentage of sales in 1984 for the fourth consecutive year.

EXHIBIT 8
P-H-C-P WHOLESALERS THREE-YEAR
SUMMARY PERFORMANCE COMPARISON
1981-1984

	Plumbing Supplies & Equipment Firms				Industrial P-V-F Firms			
	1984	1983	1982	1981	1984	1983	1982	1981
Financial Management								
Total Debt to Net Worth	90.7%	85.8%	68.9%	78.1%	74.4%	83.9%	83.3%	64.2%
Current Assets Minus Inventory to Current Debt	1.0x	1.0x	1.3x	1.1x	1.1x	1.1x	1.2x	1.0x
Personnel Productivity								
Net Sales per Employee	$189,182	$171,166	$158,548	$162,470	$197,975	$196,923	$201,377	$198,150
Payroll and Fringe Benefits to Net Sales	13.5%	13.7%	14.1%	13.8%	14.4%	14.1%	13.9%	12.9%
Inventory Management								
Gross Margin on Sales	24.3%	24.3%	25.0%	24.4%	25.7%	24.4%	23.4%	25.1%
Cost of Warehouse Goods Sold to Average Inventory	3.8x	3.7x	3.3x	3.5x	3.2x	3.1x	2.7x	3.0x
Total Cost of Goods Sold to Average Inventory	4.2x	4.1x	3.7x	4.2x	4.2x	3.6x	3.7x	3.4x
Warehouse Gross Margin Return on Inventory	126%	124%	113%	127%	121%	109%	95%	111%
Accounts Receivable								
Average Collection Period (Days)	49	50	50	44	48	51	40	40
Expense Management								
Total Operating Expenses as a Percent of Sales	21.3%	21.8%	22.7%	21.6%	22.2%	23.6%	22.0%	20.6%
Sales Performance								
Percent Sales Change from Prior Year	14.7%	18.1%	-3.1%	0.5%	20.1%	-6.8%	-11.7%	3.6%

EXHIBIT 8 (continued)
P-H-C-P WHOLESALERS THREE-YEAR
SUMMARY PERFORMANCE COMPARISON
1981-1984

	Plumbing Supplies & Equipment & Industrial P-V-F Firms				HVAC & Other Emphasis Firms				All Reporting Firms			
	1984	1983	1982	1981	1984	1983	1982	1981	1984	1983	1982	1981
Financial Management												
Total Debt to Net Worth	61.7%	56.7%	42.5%	52.3%	83.8%	87.1%	92.7%	102.1%	82.7%	78.4%	68.3%	74.1%
Current Assets Minus Inventory to Current Debt	1.3x	1.4x	1.5x	1.4x	1.0x	1.0x	1.1x	1.0x	1.1x	1.1x	1.3x	1.1x
Personnel Productivity												
Net Sales per Employee	$191,422	$167,513	$152,807	$157,900	$164,970	$144,910	$135,715	$133,470	$186,131	$167,380	$152,258	$162,040
Payroll and Fringe Benefits to Net Sales	13.7%	14.3%	15.3%	14.2%	13.9%	14.3%	15.1%	15.6%	13.7%	14.1%	14.5%	14.1%
Inventory Management												
Gross Margin on Sales	23.7%	24.1%	25.2%	24.5%	24.9%	26.2%	26.1%	26.1%	24.5%	24.8%	25.0%	24.7%
Cost of Warehouse Goods Sold to Average Inventory	3.4x	3.4x	2.8x	3.1x	3.3x	2.8x	3.3x	3.1x	3.6x	3.3x	3.1x	3.4x
Total Cost of Goods Sold to Average Inventory	4.1x	4.0x	3.6x	3.9x	3.9x	3.4x	3.4x	3.5x	4.1x	3.8x	3.6x	3.8x
Warehouse Gross Margin Return on Inventory	111%	108%	106%	114%	118%	102%	111%	118%	123%	114%	109%	119%
Accounts Receivable												
Average Collection Period (Days)	48	49	46	47	46	49	50	43	48	50	47	44
Expense Management												
Total Operating Expenses as a Percent of Sales	21.3%	22.7%	24.7%	21.2%	22.3%	23.5%	25.1%	23.5%	21.5%	22.4%	23.2%	21.7%
Sales Performance												
Percent Sales Change from Prior Year	14.2%	12.7%	-3.7%	2.8%	14.6%	7.8%	-3.7%	-0.8%	15.2%	10.5%	-4.3%	0.9%

- While payroll costs relative to sales were declining, personnel productivity as measured by net sales per employee increased to $186,131 in 1984 as compared to $167,380 in 1983. This represents an impressive 11.2 percent increase over 1983, at a time when inflation in the industry was only 4 percent. Moreover, every one of the four product emphasis groups shown in Exhibit 8 experienced a net sales per employee increase during 1984, with the "Plumbing Supplies and Equipment and Industrial P-V-F Firms" group experiencing the largest gain (14.3 percent).

  The combined impact of lower payroll costs relative to sales and higher sales output per employee represented a very strong personnel productivity performance situation in the industry in 1984. It is not surprising that the industry also experienced the highest overall profitability levels of the 1980's (as measured by return on net worth).

- Inventory productivity also improved in 1984. For the second consecutive year, "Warehouse Gross Margin Return on Inventory" increased (to 123 percent versus 114 percent the prior year for all P-H-C-P wholesalers in the aggregate) representing the highest level of performance in recent years. This same basic pattern was true for each of the four product emphasis segments shown in Exhibit 8.

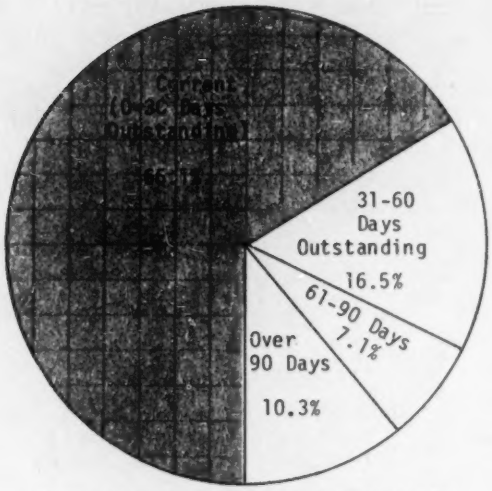
  Interestingly, the improved overall inventory productivity performance in the industry was primarily due to higher levels of inventory turnover rather than higher gross margins.

Accounts Receivable -- Also important to P-H-C-P wholesalers is the extent to which your firm's customers make payment on invoices. During 1984, the "average collection period" experienced by the typical firm in the industry was 48 days. This was a slight improvement from the 50 days reported in 1983, but still not quite as good as the 44 day collection period experience of 1981.

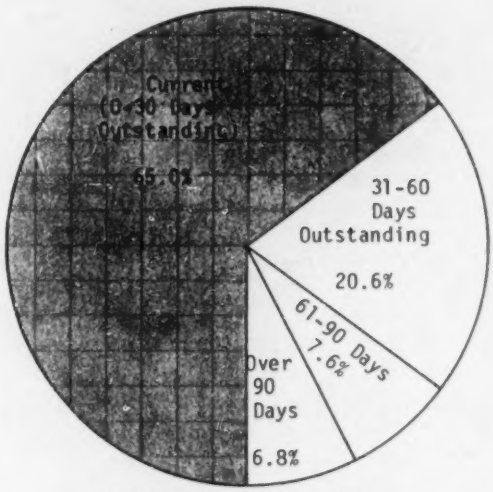
Receivables management can have a critically important impact on wholesaler profitability, depending upon how much money your firm typically has "tied up" in receivables and for how long. For example, $50,000 in receivables can cost you $500 to $750 per month just in interest alone, depending upon your firm's borrowing rate, or depending upon what you could earn on that money if available for alternative uses. In addition, the extent to which you have money in receivables and the pattern in which you collect that money, has a significant influence on your firm's cash flow situation.

Interestingly, the importance of receivables management tends to be overlooked somewhat during strong economic times because when the business climate is good, cash flow is usually strong, interest rates are low, profits are up, employees are busy, and customers usually pay fairly promptly. However, when the economy turns downward, everything reverses -- cash flow becomes strained, interest rates increase, employees are less productive, and customers stretch their payments. In other words, while effective receivables management is probably most important during business downturns, inefficiencies can arise and go unnoticed during strong business climates.

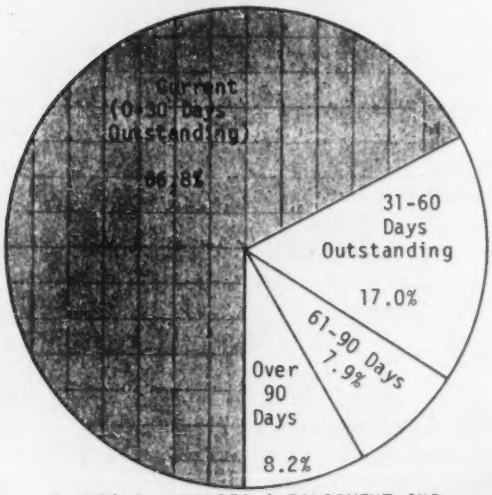
Exhibit 9
ACCOUNTS RECEIVABLE AGING--1984
(Percentage of Accounts Receivable Dollars Current and Past Due)



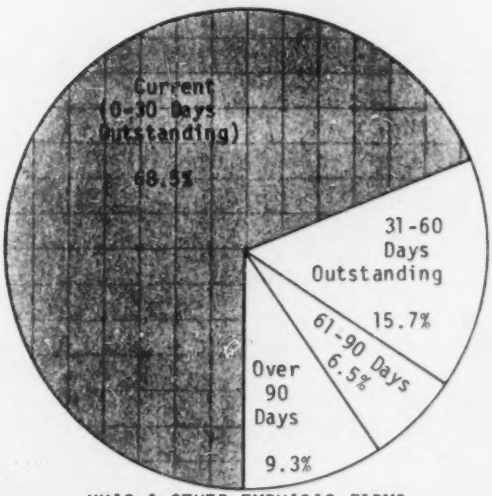
PLUMBING SUPPLIES & EQUIPMENT FIRMS



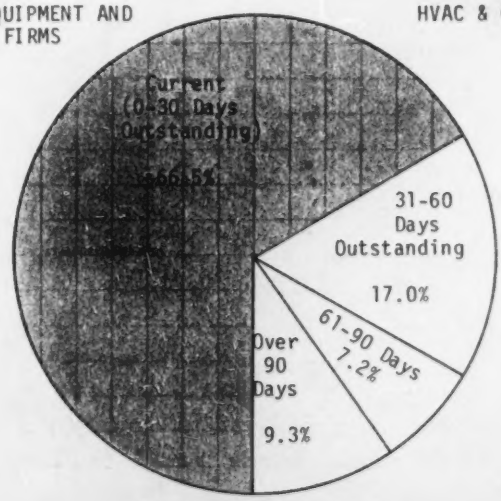
INDUSTRIAL P-V-F FIRMS



PLUMBING SUPPLIES & EQUIPMENT AND
INDUSTRIAL P-V-F FIRMS



HVAC & OTHER EMPHASIS FIRMS



ALL REPORTING FIRMS

Fortunately, the 1983-84 period has been one of significant prosperity in the economy. Nevertheless, the painful memories of the 1981-82 recession still remain. The challenge in receivables management that exists today is to take advantage of the strong economy to assure that your firm has effective credit and collection procedures in place so that when the next recession occurs you are prepared.

As a useful insight into this important area of receivables management, each year's ASA Operating Performance Report includes industry comparative accounts receivable aging information. This data, which is summarized in Exhibit 9 for 1984, shows the percentage of total receivables that are:

- Current (0-30 days outstanding)
- 31-60 days outstanding
- 61-90 days outstanding
- Over 90 days outstanding

As shown in Exhibit 9, the typical P-H-C-P wholesaler in 1984, had 66.5 percent of receivables that were current (0 to 30 days outstanding); 17 percent that were 31 to 60 days outstanding; 7.2 percent that were 61 to 90 days outstanding; and 9.3 percent that were over 90 days outstanding.

Financial Management -- The most important concerns regarding the basic financial strength of any P-H-C-P wholesaler should be: leverage and liquidity. Essentially, leverage refers to the degree to which a firm relies on creditors funds (debt) to finance a portion of the business. Liquidity refers to a firm's ability to meet its current debt obligations (that is, pay its bills).

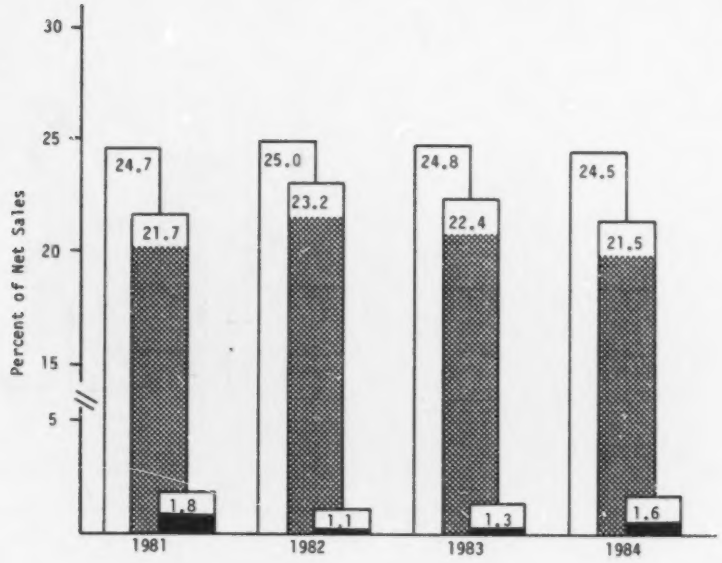
Exhibit 8 shows highlight P-H-C-P wholesaler financial management performance indicators over the 1981-1984 period. "Total debt to net worth," an indication of debt versus equity financing has steadily increased over the past couple years for "Plumbing Supplies & Equipment Firms" and "Plumbing Supplies & Equipment and Industrail P-V-F Firms," while declining somewhat for the other two product emphasis groups. Meanwhile, the ratio of "current assets minus inventory to current debt" (or "quick" or "acid-test" ratio of liquidity as it is often called) has remained fairly constant for each of the four product emphasis groups.

Expense and Profit Trends -- Probably the area of operations that receives the most managerial attention on a regular basis is expense and margin management. Most companies receive regular income statement performance results from their accountant, bookkeeper, or computer system, and as a result, watching and controlling expenses and margins is oftentimes foremost in the minds of most owners and managers. Exhibit 10 graphically shows P-H-C-P wholesaler expense and margin trends relative to sales over the past four years. In general:

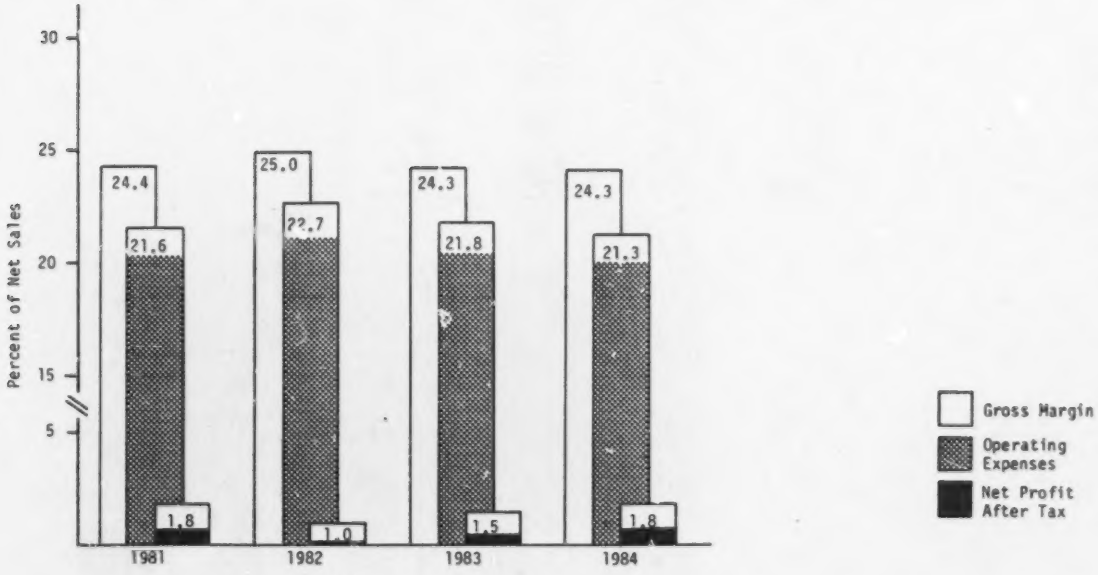
- Industry profit margin performance (net profits after tax as a percent of sales) over the past four years have tended to closely follow the economy in general. That is, profit margins were generally lowest during the 1982 recession year, and have steadily increased every since.

- Operating expenses relative to sales have tended to improve over the past couple years. This has been true of P-H-C-P wholesalers in the aggregate and for each of the four product emphasis groups.

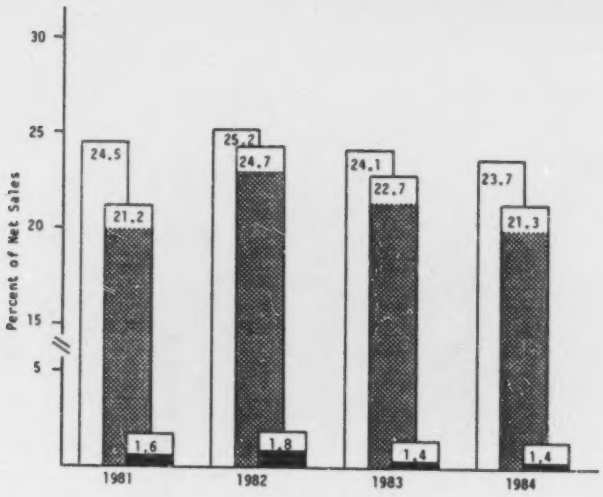
Exhibit 10
ALL P-H-C-P WHOLESALER FOUR-YEAR EXPENSE AND PROFIT TRENDS
1981-1984



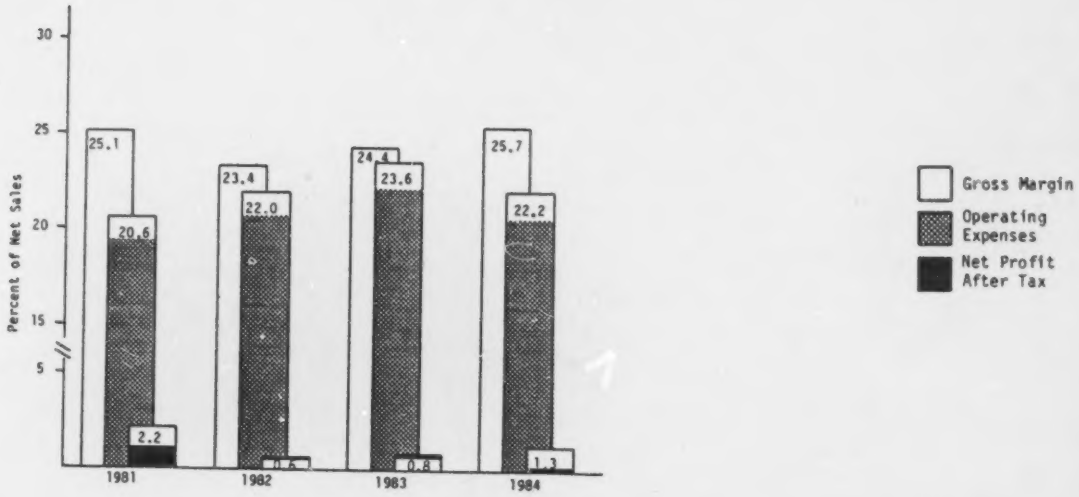
PLUMBING SUPPLIES & EQUIPMENT FIRMS FOUR-YEAR EXPENSE AND PROFIT TRENDS
1981-1984



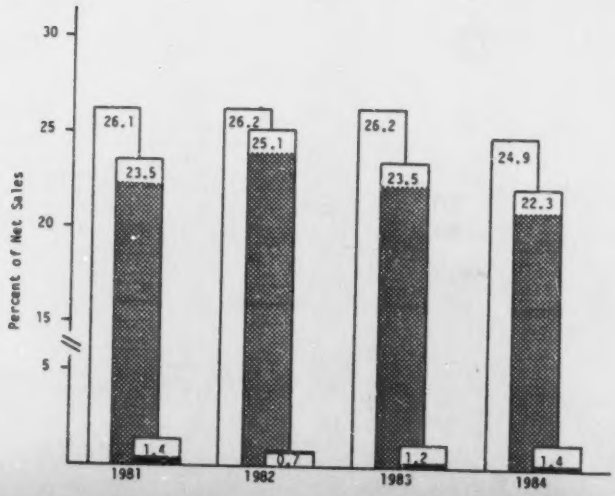
PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS
FOUR YEAR EXPENSE AND PROFIT TRENDS
1981-1984



INDUSTRIAL P-V-F FIRMS FOUR-YEAR EXPENSE AND PROFIT TRENDS
1981-1984



FOUR YEAR HVAC & OTHER EMPHASIS FIRMS FOUR-YEAR EXPENSE AND PROFIT TRENDS
1981-1984



- Gross margins as a percentage of sales have declined somewhat over the past couple years.

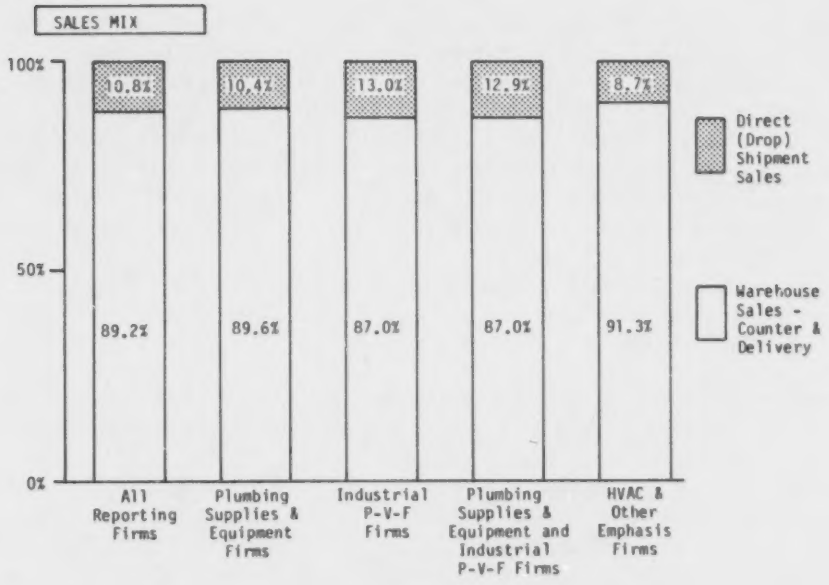
Sales Performance -- The last line of Exhibit 8 shows the very favorable sales trend that has been experienced by P-H-C-P wholesalers during 1983 and 1984. Essentially, the strength of the robust nationwide economy has led to a 15.2 percent overall sales gain (for all firms responding to the ASA survey) in 1984 after having experienced a 10.5 percent advance in 1983. Such increases are even more impressive when one considers that only a low 4.0 percent industry inflation rate occurred during these years.

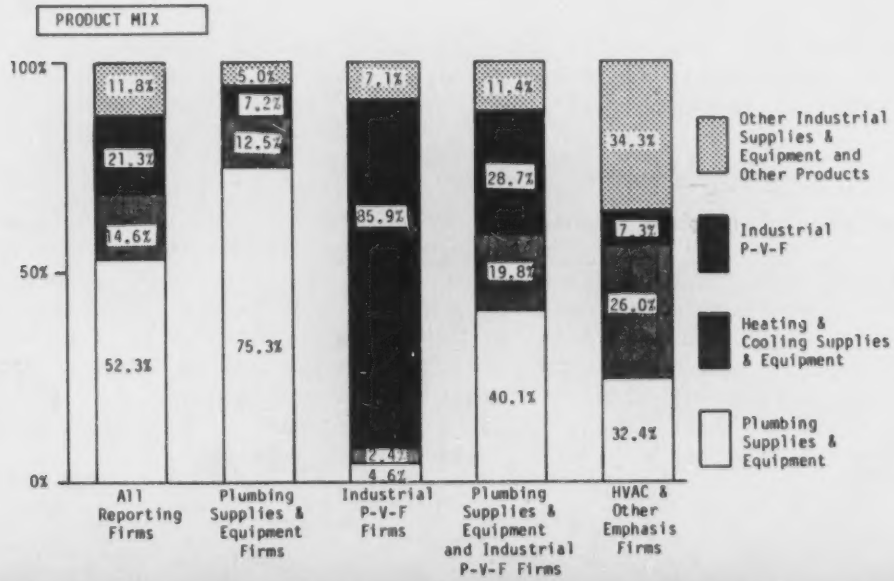
Additional insights into the character of P-H-C-P wholesaler sales are provided by Exhibit 11 below, which shows the mix of sales by type of sales transaction as well as the product mix of sales.

Exhibit 11

ANALYSIS OF 1984 P-H-C-P

WHOLESALER SALES





1984 vs. 1983 Profitability Comparison

The best overall indicator of financial performance for virtually any firm, is "return on net worth." This single measure essentially summarizes all the key components of profitability: margin management, asset management and financial policy management.

Exhibit 12 reflects the 1984 and 1983 return on net worth performance of P-H-C-P wholesalers as well as the combined impact of each of the three "profit pathways."

- Profit Margin refers to net profit (after tax) divided by net sales. It is a good measure of margin management because in order to achieve an acceptable net profit margin, a company must earn an acceptable gross margin while keeping expenses in line.

- Asset Turnover depicts net sales divided by total assets. This is an overall measure of asset management, showing how many dollars in sales are being generated by each dollar of assets employed in running the business.

- Financial Leverage is derived from total assets divided by net worth. Financial leverage is nothing more than the degree to which debt is used to finance the business as opposed to net worth (owner's investment).

Since the above three components multiply together to yield return on net worth, increases in any of these three components increases the overall profitability of the firm. Unfortunately, the opposite is also true.

Based upon the profit models shown in Exhibit 12 for the various types of P-H-C-P wholesalers, several insights are especially noteworthy:

- Without exception among the various industry segments, 1984 was a more profitable year for P-H-C-P wholesalers than was 1983. The most profitable group was "Plumbing Supplies & Equipment Firms," which reported a 9.8 percent return on net worth, up from 7.5 percent in 1983. This group of firms, which represents the industry's largest segment, enjoyed strong performance in both profit margins and asset turnover.

- The least profitable group in both 1984 and 1983 was "Industrial P-V-F Firms" which experienced return on net worth levels of 6.9 and 5.9 percent respectively.

High Profit Firms vs. the "Typical" Firm

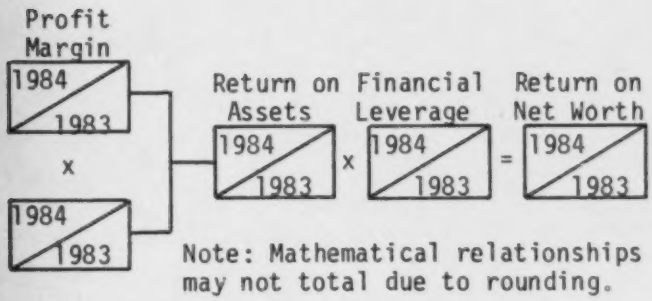
Perhaps the most important set of detailed statistics contained in each year's ASA Operating Performance Report is the indicators of "High Profit Firm" performance. Essentially, this is a special data grouping of the most profitable companies (on the basis of before tax return on assets). Since high profitability is a primary goal of most P-H-C-P wholesalers, important insights can be gained by understanding what characterizes the most profitable firms. Exhibit 13 below is a summary of the key indicators of profitability, showing the results of the "High Profit Firms" as compared to the "typical" or median firm. In particular:

Exhibit 12

P-H-C-P WHOLESALER TWO-YEAR
STRATEGIC PROFIT MODEL RATIOS

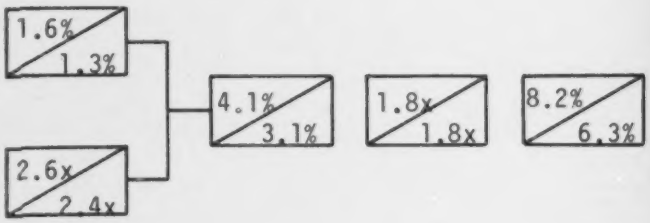
1984 vs. 1983

HOW TO INTERPRET

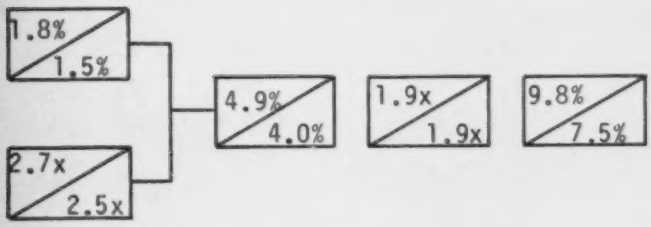


Note: Mathematical relationships may not total due to rounding.

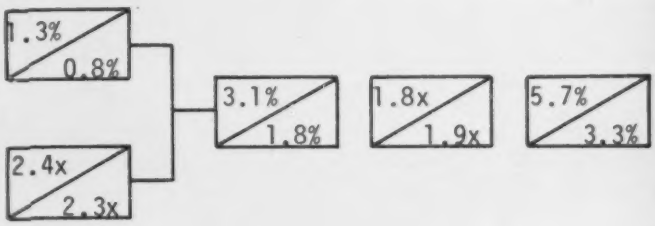
ALL REPORTING FIRMS



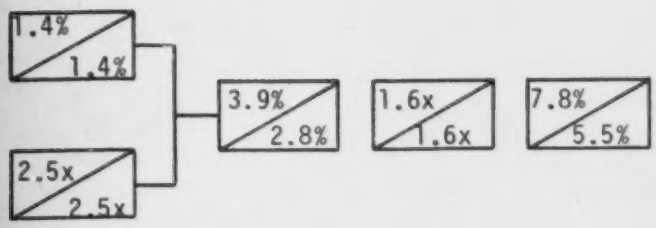
PLUMBING SUPPLIES & EQUIPMENT FIRMS



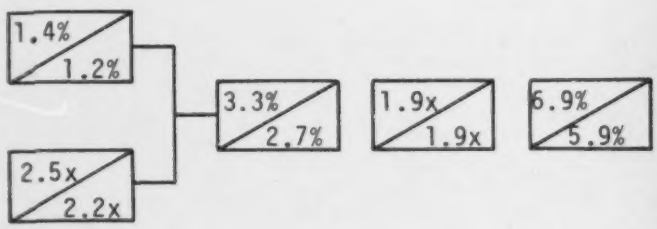
INDUSTRIAL P-V-F FIRMS



PLUMBING SUPPLIES & EQUIPMENT AND INDUSTRIAL P-V-F FIRMS



HVAC & OTHER EMPHASIS FIRMS



- "High Profit" P-H-C-P wholesalers in 1984 tended to experience higher levels of sales growth than did the "typical" firm.

- "High Profit Firm" operating expenses as a percentage of sales were somewhat lower than the "typical" firm. This is true for three of the four product emphasis groups. ("Industrial P-V-F Firms" were the only exception.)

- Personnel and inventory productivity performance was consistently higher for the high profit firms, as reflected by the fact that the "High Profit Firms" experienced higher sales per employee, lower payroll costs relative to sales, and higher levels of warehouse gross margin return on average inventory.

EXHIBIT 13
SUMMARY PERFORMANCE COMPARISON —
HIGH PROFIT FIRMS VS. "TYPICAL FIRM"
P-H-C-P WHOLESALERS 1984

	Plumbing Supplies & Equipment Firms		Industrial P-V-F Firms		Plumbing Supplies & Equipment & Industrial P-V-F Firms		HVAC & Other Emphasis Firms		All Reporting Firms
	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit	
Profitability									
Net Profit (After Tax) to Total Assets	4.9%	7.4%	3.1%	6.6%	3.9%	6.4%	3.3%	6.8%	4.1%
Net Profit (After Tax) to Net Worth	9.8%	14.9%	5.7%	10.3%	7.8%	10.6%	6.9%	12.2%	8.2%
Net Profit (After Tax) to Net Sales	1.8%	2.7%	1.3%	2.3%	1.4%	2.4%	1.5%	2.6%	1.6%
Asset and Financial Management									
Net Sales to Total Assets	2.7x	2.7x	2.4x	2.4x	2.5x	2.5x	2.5x	2.6x	2.6x
Total Debt to Net Worth	90.7%	78.3%	74.4%	64.0%	61.7%	49.2%	83.8%	98.5%	82.7%
Current Assets to Current Debt	2.4x	2.6x	2.5x	2.7x	2.7x	2.8x	2.7x	3.1x	2.5x
Personnel Productivity									
Net Sales per Employee	$189,182	$202,496	$197,975	$215,392	$191,422	$221,282	$164,970	$192,319	$186,131
Payroll and Fringe Benefits to Net Sales	13.5%	12.9%	14.4%	14.4%	13.7%	13.4%	13.9%	11.9%	13.7%
Inventory Management									
Gross Margin on Net Sales	24.3%	24.2%	25.7%	28.1%	23.7%	23.4%	24.9%	25.8%	24.5%
Gross Margin on Direct Shipments	10.4%	10.0%	11.8%	11.4%	10.8%	10.0%	13.5%	12.4%	11.3%
Gross Margin on Warehouse Sales	25.2%	24.6%	27.9%	28.7%	25.1%	25.9%	24.7%	24.4%	25.2%
Cost of Warehouse Goods Sold to Average Inventory	3.8x	4.3x	3.2x	3.2x	3.4x	4.2x	3.3x	4.2x	3.6x
Total Cost of Goods Sold to Average Inventory	4.2x	4.9x	4.2x	4.4x	4.1x	6.0x	3.9x	4.4x	4.1x
Warehouse Gross Margin Return on Average Inventory	126%	137%	121%	132%	111%	139%	118%	130%	123%
Accounts Receivable									
Average Collection Period (Days)	49	48	48	55	48	48	46	43	48
Operating Expenses (% of Net Sales)									
Selling Expenses	5.6%	5.6%	7.0%	7.2%	6.0%	5.5%	6.5%	6.1%	6.1%
Delivery Expenses	1.8%	1.8%	2.0%	2.1%	1.7%	1.8%	1.6%	1.3%	1.7%
Warehouse Expenses	2.5%	2.3%	2.8%	2.7%	2.5%	2.5%	2.7%	3.0%	2.6%
General & Administrative Expenses	8.3%	8.1%	8.2%	8.9%	8.3%	7.7%	8.7%	9.4%	8.3%
Occupancy Expenses	1.9%	1.6%	1.4%	1.5%	2.0%	1.6%	1.6%	1.6%	1.6%
Total Operating Expenses	21.3%	19.8%	22.2%	23.4%	21.3%	19.1%	22.3%	22.1%	21.5%
Sales Performance									
Percent Sales Change from Prior Year	14.7%	15.5%	20.1%	20.1%	14.2%	17.9%	14.6%	19.3%	15.2%

Plumbing Supplies & Equipment Firms

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.84%	4.88 - 16.91%
Total Assets to Net Worth	1.91X	1.50 - 2.98X
Net Profit After Tax to Total Assets	4.92%	2.32 - 7.41%
Net Sales to Total Assets	2.67X	2.17 - 3.01X
Net Profit After Tax to Net Sales	1.80%	0.90 - 2.80%
Net Profit Before Tax to Net Worth	13.13%	6.48 - 23.53%
Net Profit Before Tax to Total Assets	6.79%	2.72 - 10.52%
EBIT to Total Assets	9.17%	5.88 - 13.29%
SALES ANALYSIS		
Net Sales ($000)	$4,827	$2,706 - 10,496
Percent Sales Change from Prior Year	14.66%	8.07 - 24.74%
Sales Mix:		
Direct Sales	10.4%	4.1 - 13.7%
Warehouse Sales - Counter and Delivery	89.6%	86.3 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	75.3%	60.0 - 90.0%
Heating & Cooling Supplies & Equipment	12.5%	0.0 - 23.0%
Industrial P-V-F (Pipes-Valves-Fittings)	7.2%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.3%	0.0 - 0.0%
Other Products	3.7%	0.0 - 3.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.3%	21.5 - 26.6%
Gross Margin on Direct Shipments	10.4%	8.1 - 13.7%
Gross Margin on Warehouse Sales	25.2%	22.3 - 27.6%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.05X	2.47 - 3.50X
Total Debt to Net Worth	90.7%	49.5 - 197.9%
Current Debt to Net Worth	68.6%	42.7 - 151.0%
Current Assets to Current Debt	2.44X	1.73 - 3.47X
Current Assets Minus Inventory/Curr Debt	1.02X	0.73 - 1.53X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 8.0
Average Invoice Size	$146	$101 - 206
Average Billing Line	$24.13	$16.02 - 34.96

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$189,182	$160,064 - 236,882
Gross Margin Per Employee	$45,801	$39,390 - 54,251
Average Compensation Per Employee	$21,492	$18,579 - 24,752
Average Fringe Benefits Per Employee	$4,088	$2,768 - 5,467
Compensation & Fringes Per Employee	$26,159	$21,957 - 29,895
Payroll to Net Sales	11.3%	10.1 - 12.8%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.8%
Payroll & Fringes to Net Sales	13.5%	11.4 - 15.2%
Payroll to Gross Margin	46.5%	42.0 - 52.1%
Fringe Benefits to Gross Margin	8.8%	6.8 - 11.1%
Payroll & Fringes to Gross Margin	56.8%	49.8 - 61.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.75X	2.85 - 5.03X
No. of Days Average Inventory Carried	97 Days	73 - 128 Days
Total Cost of Goods Sold to Ave Inventory	4.22X	3.30 - 5.75X
Whse Gross Margin Return on Ave Inventory	126%	101 - 163%
Turn & Earn Profitability Index	95%	75 - 124%
Percent of Firms on LIFO	50.96%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	41 - 57 Days
Gross Margin Return on Receivables	180%	150 - 225%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.1%	58.2 - 74.8%
31-60 Days Outstanding	16.5%	11.9 - 20.2%
61-90 Days Outstanding	7.1%	3.7 - 9.4%
Over 90 Days Outstanding	10.3%	4.4 - 14.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,082	$693 - 1,697
31-60 Days Outstanding	$1,258	$650 - 2,138
61-90 Days Outstanding	$1,085	$556 - 2,179
Over 90 Days Outstanding	$1,487	$870 - 2,748
Total	$1,096	$769 - 1,561
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.1%	64.9 - 80.6%
31-60 Days Outstanding	15.9%	11.3 - 19.7%
61-90 Days Outstanding	6.7%	3.4 - 8.3%
Over 90 Days Outstanding	6.3%	3.1 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	73.3 - 78.5%
Gross Margin	24.3%	21.5 - 26.6%
Operating Expenses:		
Selling Expenses	5.6%	4.1 - 7.1%
Delivery Expenses	1.8%	1.2 - 2.4%
Warehouse Expenses	2.5%	1.7 - 3.4%
General & Administrative Expenses	8.3%	6.7 - 10.9%
Occupancy Expenses	1.9%	1.2 - 2.6%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	21.3%	18.8 - 23.9%
Net Operating Profit	2.4%	1.2 - 4.2%
Non-Operating Income	1.9%	0.9 - 2.6%
Non-Operating Expenses	1.8%	1.1 - 2.7%
Net Profit Before Tax	2.5%	1.0 - 3.9%
Net Profit After Tax	1.8%	0.9 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.3%	18.8 - 23.9%
Total Operating Expense to Gross Margin	89.0%	82.6 - 95.2%
Non-People Expense to Net Sales	7.4%	6.4 - 9.0%
Non-People Expense to Gross Margin	31.5%	27.3 - 37.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.5 - 1.7%
Times Interest Earned	3.3X	1.7 - 8.5X
BALANCE SHEET		
Cash	6.1%	0.7 - 8.1%
Accounts & Notes Receivable, Trade(Net)	31.8%	24.5 - 39.7%
Inventory	47.5%	39.5 - 55.7%
Other Current Assets	2.1%	0.3 - 2.2%
Total Current Assets	87.6%	83.7 - 94.5%
All Other Assets	12.4%	5.5 - 16.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.8%	24.4 - 51.1%
Total Long-Term Liabilities	10.1%	0.1 - 13.8%
Total Liabilities	48.9%	32.9 - 66.2%
Total Net Worth	51.1%	33.8 - 67.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	9.86%	3.90 - 18.98%
Total Assets to Net Worth	1.83X	1.47 - 3.15X
Net Profit After Tax to Total Assets	5.22%	2.11 - 7.89%
Net Sales to Total Assets	2.54X	2.05 - 2.97X
Net Profit After Tax to Net Sales	1.80%	0.90 - 3.50%
Net Profit Before Tax to Net Worth	12.42%	4.88 - 22.04%
Net Profit Before Tax to Total Assets	6.32%	2.37 - 9.56%
EBIT to Total Assets	8.73%	4.02 - 11.69%
SALES ANALYSIS		
Net Sales ($000)	$1,938	$1,372 - 2,567
Percent Sales Change from Prior Year	13.11%	6.18 - 23.05%
Sales Mix:		
Direct Sales	8.1%	0.6 - 11.6%
Warehouse Sales - Counter and Delivery	91.9%	88.4 - 99.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	76.7%	65.0 - 90.0%
Heating & Cooling Supplies & Equipment	10.3%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.4%	0.0 - 9.0%
Other Industrial Supplies & Equipment	1.9%	0.0 - 5.0%
Other Products	5.8%	0.0 - 5.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.4%	22.4 - 27.7%
Gross Margin on Direct Shipments	10.3%	7.1 - 16.8%
Gross Margin on Warehouse Sales	25.7%	22.9 - 28.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.79X	2.35 - 3.58X
Total Debt to Net Wo. th	83.5%	47.5 - 214.6%
Current Debt to Net Worth	63.9%	41.6 - 141.0%
Current Assets to Current Debt	2.50X	1.74 - 3.53X
Current Assets Minus Inventory/Curr Debt	1.01X	0.74 - 1.54X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	5.2 - 10.0
Average Invoice Size	$119	$77 - 187
Average Billing Line	$19.24	$10.01 - 29.69

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$161,962	$144,069 - 199,979
Gross Margin Per Employee	$40,413	$34,851 - 50,660
Average Compensation Per Employee	$19,677	$15,990 - 24,748
Average Fringe Benefits Per Employee	$3,278	$2,249 - 5,349
Compensation & Fringes Per Employee	$22,573	$18,328 - 29,799
Payroll to Net Sales	11.8%	10.0 - 13.6%
Fringe Benefits to Net Sales	1.9%	1.5 - 3.0%
Payroll & Fringes to Net Sales	13.8%	11.7 - 15.7%
Payroll to Gross Margin	47.9%	43.3 - 51.9%
Fringe Benefits to Gross Margin	8.0%	5.8 - 11.5%
Payroll & Fringes to Gross Margin	57.5%	50.3 - 61.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.82X	2.50 - 5.20X
No. of Days Average Inventory Carried	95 Days	70 - 146 Days
Total Cost of Goods Sold to Ave Inventory	3.87X	2.77 - 5.57X
Whse Gross Margin Return on Ave Inventory	136%	90 - 173%
Turn & Earn Profitability Index	96%	65 - 129%
Percent of Firms on LIFO	29.17%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	39 - 60 Days
Gross Margin Return on Receivables	180%	148 - 242%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.6%	59.8 - 79.2%
31-60 Days Outstanding	14.8%	10.0 - 17.9%
61-90 Days Outstanding	5.3%	1.7 - 7.3%
Over 90 Days Outstanding	11.4%	3.5 - 17.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$747	$443 - 1,380
31-60 Days Outstanding	$561	$374 - 1,388
61-90 Days Outstanding	$548	$285 - 1,120
Over 90 Days Outstanding	$811	$503 - 1,843
Total	$759	$513 - 1,302
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.0%	67.0 - 80.6%
31-60 Days Outstanding	15.9%	12.0 - 19.0%
61-90 Days Outstanding	5.8%	3.0 - 7.7%
Over 90 Days Outstanding	6.2%	2.3 - 6.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.6%	72.3 - 77.6%
Gross Margin	25.4%	22.4 - 27.7%
Operating Expenses:		
Selling Expenses	5.1%	3.9 - 7.5%
Delivery Expenses	2.2%	1.2 - 3.3%
Warehouse Expenses	2.1%	1.3 - 3.5%
General & Administrative Expenses	9.2%	7.4 - 11.7%
Occupancy Expenses	2.1%	1.0 - 3.1%
Other Operating Expenses	0.0%	0.0 - 0.1%
Total Operating Expenses	22.6%	19.2 - 25.1%
Net Operating Profit	2.3%	1.1 - 4.7%
Non-Operating Income	1.5%	0.3 - 2.4%
Non-Operating Expenses	1.6%	0.4 - 2.3%
Net Profit Before Tax	2.5%	1.2 - 4.1%
Net Profit After Tax	1.8%	0.9 - 3.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.6%	19.2 - 25.1%
Total Operating Expense to Gross Margin	89.2%	83.1 - 95.2%
Non-People Expense to Net Sales	8.0%	6.7 - 9.6%
Non-People Expense to Gross Margin	31.8%	27.5 - 37.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.7%
Times Interest Earned	3.5X	2.1 - 10.3X
BALANCE SHEET		
Cash	7.8%	1.2 - 11.4%
Accounts & Notes Receivable, Trade(Net)	29.7%	20.2 - 39.9%
Inventory	49.7%	43.2 - 57.8%
Other Current Assets	1.8%	0.2 - 1.9%
Total Current Assets	89.1%	86.9 - 96.2%
All Other Assets	10.9%	3.8 - 13.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.4%	23.2 - 50.6%
Total Long-Term Liabilities	10.9%	0.0 - 13.7%
Total Liabilities	48.3%	32.1 - 65.5%
Total Net Worth	51.7%	34.5 - 67.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.94%	4.91 - 15.17%
Total Assets to Net Worth	1.69X	1.28 - 2.23X
Net Profit After Tax to Total Assets	5.01%	2.28 - 8.25%
Net Sales to Total Assets	2.63X	2.13 - 2.95X
Net Profit After Tax to Net Sales	2.10%	0.80 - 3.30%
Net Profit Before Tax to Net Worth	12.98%	7.27 - 25.05%
Net Profit Before Tax to Total Assets	7.68%	2.51 - 11.82%
EBIT to Total Assets	8.88%	6.08 - 13.16%
SALES ANALYSIS		
Net Sales ($000)	$4,509	$4,038 - 5,282
Percent Sales Change from Prior Year	14.03%	8.98 - 20.92%
Sales Mix:		
Direct Sales	10.8%	4.2 - 16.7%
Warehouse Sales - Counter and Delivery	89.2%	83.3 - 95.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	75.3%	60.0 - 90.0%
Heating & Cooling Supplies & Equipment	14.6%	3.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.4%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.0%	0.0 - 0.0%
Other Products	2.7%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.8%	22.6 - 26.8%
Gross Margin on Direct Shipments	11.2%	8.0 - 15.8%
Gross Margin on Warehouse Sales	25.5%	22.9 - 27.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.90X	2.43 - 3.24X
Total Debt to Net Worth	68.6%	28.6 - 122.8%
Current Debt to Net Worth	55.1%	26.5 - 105.3%
Current Assets to Current Debt	2.69X	2.05 - 4.41X
Current Assets Minus Inventory/Curr Debt	1.26X	0.82 - 2.15X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 8.0
Average Invoice Size	$156	$121 - 213
Average Billing Line	$25.42	$16.76 - 34.34

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$184,580	$162,728 - 233,203
Gross Margin Per Employee	$46,543	$38,493 - 52,878
Average Compensation Per Employee	$21,135	$18,558 - 24,074
Average Fringe Benefits Per Employee	$4,243	$3,337 - 6,020
Compensation & Fringes Per Employee	$25,149	$22,715 - 29,694
Payroll to Net Sales	11.4%	10.1 - 13.3%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.9%
Payroll & Fringes to Net Sales	13.7%	11.7 - 15.5%
Payroll to Gross Margin	46.8%	41.9 - 52.4%
Fringe Benefits to Gross Margin	9.8%	7.3 - 11.6%
Payroll & Fringes to Gross Margin	57.6%	50.2 - 63.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.61X	2.87 - 4.69X
No. of Days Average Inventory Carried	101 Days	78 - 127 Days
Total Cost of Goods Sold to Ave Inventory	4.06X	3.24 - 5.20X
Whse Gross Margin Return on Ave Inventory	132%	103 - 167%
Turn & Earn Profitability Index	93%	77 - 123%
Percent of Firms on LIFO	49.02%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	43 - 57 Days
Gross Margin Return on Receivables	181%	153 - 232%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.1%	55.5 - 69.9%
31-60 Days Outstanding	18.1%	13.5 - 21.1%
61-90 Days Outstanding	8.1%	5.4 - 10.2%
Over 90 Days Outstanding	10.7%	6.5 - 15.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,054	$736 - 1,513
31-60 Days Outstanding	$1,110	$727 - 2,054
61-90 Days Outstanding	$1,122	$613 - 2,246
Over 90 Days Outstanding	$1,401	$1,041 - 2,379
Total	$1,119	$862 - 1,560
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.9%	59.6 - 79.2%
31-60 Days Outstanding	17.6%	13.1 - 21.8%
61-90 Days Outstanding	7.0%	5.1 - 8.6%
Over 90 Days Outstanding	6.5%	3.4 - 8.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.0%	73.2 - 77.4%
Gross Margin	24.8%	22.6 - 26.8%
Operating Expenses:		
Selling Expenses	5.7%	3.9 - 7.0%
Delivery Expenses	1.8%	1.2 - 2.5%
Warehouse Expenses	2.6%	1.5 - 3.3%
General & Administrative Expenses	8.8%	6.9 - 12.0%
Occupancy Expenses	1.9%	1.4 - 2.8%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	21.9%	19.7 - 24.6%
Net Operating Profit	2.5%	1.3 - 4.0%
Non-Operating Income	2.0%	1.5 - 2.5%
Non-Operating Expenses	1.3%	1.1 - 2.7%
Net Profit Before Tax	3.0%	0.8 - 4.1%
Net Profit After Tax	2.1%	0.8 - 3.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.9%	19.7 - 24.6%
Total Operating Expense to Gross Margin	89.6%	83.5 - 94.6%
Non-People Expense to Net Sales	7.7%	6.4 - 9.0%
Non-People Expense to Gross Margin	30.7%	26.9 - 35.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.5%
Times Interest Earned	3.7X	1.5 - 9.5X
BALANCE SHEET		
Cash	6.9%	1.4 - 10.0%
Accounts & Notes Receivable, Trade(Net)	32.5%	26.4 - 38.3%
Inventory	47.4%	37.3 - 56.1%
Other Current Assets	1.9%	0.3 - 2.0%
Total Current Assets	88.7%	84.9 - 95.0%
All Other Assets	11.3%	4.9 - 15.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	32.5%	19.4 - 40.7%
Total Long-Term Liabilities	9.3%	0.0 - 11.8%
Total Liabilities	41.8%	21.9 - 55.1%
Total Net Worth	58.2%	44.9 - 78.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.74%	1.67 - 11.94%
Total Assets to Net Worth	2.31X	1.78 - 3.31X
Net Profit After Tax to Total Assets	3.15%	0.80 - 6.29%
Net Sales to Total Assets	2.97X	2.07 - 3.29X
Net Profit After Tax to Net Sales	1.10%	0.30 - 2.40%
Net Profit Before Tax to Net Worth	11.15%	2.84 - 18.04%
Net Profit Before Tax to Total Assets	3.76%	1.25 - 9.56%
EBIT to Total Assets	7.49%	4.12 - 14.29%
SALES ANALYSIS		
Net Sales ($000)	$8,910	$7,894 - 10,511
Percent Sales Change from Prior Year	13.18%	5.55 - 31.15%
Sales Mix:		
Direct Sales	10.7%	5.0 - 18.3%
Warehouse Sales - Counter and Delivery	89.3%	81.7 - 94.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	74.3%	60.0 - 89.3%
Heating & Cooling Supplies & Equipment	13.2%	0.0 - 23.0%
Industrial P-V-F (Pipes-Valves-Fittings)	9.7%	0.0 - 19.0%
Other Industrial Supplies & Equipment	0.7%	0.0 - 0.0%
Other Products	2.1%	0.0 - 1.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.8%	21.1 - 26.0%
Gross Margin on Direct Shipments	11.9%	9.8 - 13.3%
Gross Margin on Warehouse Sales	23.8%	21.5 - 27.0%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.22X	2.71 - 3.74X
Total Debt to Net Worth	131.1%	78.2 - 231.0%
Current Debt to Net Worth	90.7%	63.3 - 197.2%
Current Assets to Current Debt	1.90X	1.45 - 2.61X
Current Assets Minus Inventory/Curr Debt	0.76X	0.63 - 0.99X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.1 - 7.0
Average Invoice Size	$138	$102 - 186
Average Billing Line	$28.00	$16.13 - 36.91

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$205,803	$182,410 - 238,008
Gross Margin Per Employee	$45,843	$41,500 - 55,409
Average Compensation Per Employee	$23,371	$20,860 - 24,852
Average Fringe Benefits Per Employee	$4,080	$3,078 - 4,758
Compensation & Fringes Per Employee	$27,444	$23,878 - 29,729
Payroll to Net Sales	12.1%	10.5 - 13.1%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.7%
Payroll & Fringes to Net Sales	13.9%	11.6 - 15.1%
Payroll to Gross Margin	51.1%	42.6 - 54.6%
Fringe Benefits to Gross Margin	9.2%	6.9 - 10.2%
Payroll & Fringes to Gross Margin	59.7%	48.3 - 64.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.75X	2.90 - 5.26X
No. of Days Average Inventory Carried	97 Days	70 - 126 Days
Total Cost of Goods Sold to Ave Inventory	4.30X	3.35 - 6.56X
Whse Gross Margin Return on Ave Inventory	122%	99 - 165%
Turn & Earn Profitability Index	95%	75 - 129%
Percent of Firms on LIFO	60.71%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	39 - 55 Days
Gross Margin Return on Receivables	173%	149 - 229%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.7%	59.3 - 72.6%
31-60 Days Outstanding	17.2%	12.2 - 21.2%
61-90 Days Outstanding	7.9%	4.9 - 10.4%
Over 90 Days Outstanding	8.2%	4.3 - 10.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,250	$746 - 1,898
31-60 Days Outstanding	$1,675	$993 - 2,301
61-90 Days Outstanding	$1,243	$833 - 1,689
Over 90 Days Outstanding	$1,479	$1,026 - 2,899
Total	$1,189	$845 - 1,515
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.9%	63.2 - 80.8%
31-60 Days Outstanding	14.4%	6.4 - 19.8%
61-90 Days Outstanding	8.1%	2.2 - 8.4%
Over 90 Days Outstanding	5.7%	2.2 - 8.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.9%	73.9 - 78.9%
Gross Margin	23.8%	21.1 - 26.0%
Operating Expenses:		
Selling Expenses	5.6%	4.8 - 7.2%
Delivery Expenses	2.1%	1.7 - 2.8%
Warehouse Expenses	2.8%	1.6 - 3.5%
General & Administrative Expenses	8.0%	6.8 - 9.9%
Occupancy Expenses	2.1%	1.2 - 2.6%
Other Operating Expenses	0.5%	0.0 - 0.6%
Total Operating Expenses	21.7%	20.2 - 23.1%
Net Operating Profit	1.7%	0.5 - 3.9%
Non-Operating Income	1.8%	0.5 - 2.8%
Non-Operating Expenses	2.5%	1.3 - 3.1%
Net Profit Before Tax	1.0%	-0.1 - 3.8%
Net Profit After Tax	1.1%	0.3 - 2.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.7%	20.2 - 23.1%
Total Operating Expense to Gross Margin	93.4%	83.5 - 98.0%
Non-People Expense to Net Sales	7.6%	6.8 - 9.2%
Non-People Expense to Gross Margin	33.6%	29.2 - 38.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.6 - 2.0%
Times Interest Earned	2.1X	1.1 - 4.7X
BALANCE SHEET		
Cash	3.5%	0.3 - 3.9%
Accounts & Notes Receivable, Trade(Net)	32.9%	23.8 - 41.1%
Inventory	46.8%	41.5 - 54.3%
Other Current Assets	1.8%	0.4 - 1.9%
Total Current Assets	85.1%	78.8 - 92.0%
All Other Assets	14.9%	8.0 - 21.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	47.5%	32.7 - 62.7%
Total Long-Term Liabilities	10.2%	1.9 - 16.3%
Total Liabilities	57.7%	43.9 - 69.8%
Total Net Worth	42.3%	30.2 - 56.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	13.48%	7.40 - 18.86%
Total Assets to Net Worth	2.27X	1.56 - 3.82X
Net Profit After Tax to Total Assets	5.27%	3.24 - 6.96%
Net Sales to Total Assets	2.72X	2.54 - 3.00X
Net Profit After Tax to Net Sales	1.90%	1.10 - 2.60%
Net Profit Before Tax to Net Worth	20.38%	11.83 - 31.68%
Net Profit Before Tax to Total Assets	8.22%	5.32 - 11.25%
EBIT to Total Assets	11.87%	9.12 - 13.73%
SALES ANALYSIS		
Net Sales ($000)	$18,401	$14,345 - 27,992
Percent Sales Change from Prior Year	18.20%	12.78 - 27.39%
Sales Mix:		
Direct Sales	12.7%	10.0 - 16.8%
Warehouse Sales - Counter and Delivery	87.3%	83.2 - 90.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	73.9%	60.0 - 89.5%
Heating & Cooling Supplies & Equipment	11.7%	0.0 - 19.8%
Industrial P-V-F (Pipes-Valves-Fittings)	8.9%	0.5 - 13.8%
Other Industrial Supplies & Equipment	1.6%	0.0 - 0.8%
Other Products	3.9%	0.0 - 4.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.4%	20.5 - 24.5%
Gross Margin on Direct Shipments	9.1%	7.0 - 11.3%
Gross Margin on Warehouse Sales	23.7%	22.1 - 26.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.14X	2.91 - 3.51X
Total Debt to Net Worth	127.0%	56.3 - 281.4%
Current Debt to Net Worth	89.0%	48.0 - 219.1%
Current Assets to Current Debt	2.31X	1.39 - 2.84X
Current Assets Minus Inventory/Curr Debt	1.03X	0.71 - 1.29X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.0 - 7.0
Average Invoice Size	$163	$130 - 230
Average Billing Line	$29.71	$21.17 - 44.05

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$228,787	$190,918 - 279,159
Gross Margin Per Employee	$50,668	$45,032 - 57,952
Average Compensation Per Employee	$23,320	$20,433 - 26,168
Average Fringe Benefits Per Employee	$4,739	$3,538 - 5,380
Compensation & Fringes Per Employee	$27,095	$24,194 - 30,593
Payroll to Net Sales	10.5%	8.7 - 11.4%
Fringe Benefits to Net Sales	1.9%	1.5 - 2.5%
Payroll & Fringes to Net Sales	11.8%	10.4 - 13.6%
Payroll to Gross Margin	45.7%	41.1 - 49.4%
Fringe Benefits to Gross Margin	8.8%	6.7 - 10.7%
Payroll & Fringes to Gross Margin	53.9%	49.2 - 59.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.29X	3.30 - 5.01X
No. of Days Average Inventory Carried	85 Days	73 - 110 Days
Total Cost of Goods Sold to Ave Inventory	4.93X	3.88 - 6.21X
Whse Gross Margin Return on Ave Inventory	126%	104 - 159%
Turn & Earn Profitability Index	102%	79 - 119%
Percent of Firms on LIFO	80.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	44 - 57 Days
Gross Margin Return on Receivables	176%	140 - 199%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.6%	58.1 - 73.8%
31-60 Days Outstanding	16.0%	11.7 - 18.4%
61-90 Days Outstanding	7.5%	4.3 - 9.7%
Over 90 Days Outstanding	10.0%	4.5 - 15.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,701	$1,084 - 2,946
31-60 Days Outstanding	$2,175	$1,498 - 3,864
61-90 Days Outstanding	$2,258	$1,094 - 5,262
Over 90 Days Outstanding	$2,945	$1,816 - 5,469
Total	$1,908	$1,085 - 2,303
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	73.0%	66.5 - 80.8%
31-60 Days Outstanding	13.7%	8.3 - 18.1%
61-90 Days Outstanding	6.5%	3.4 - 7.9%
Over 90 Days Outstanding	6.8%	3.8 - 8.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	78.0%	75.5 - 79.5%
Gross Margin	22.4%	20.5 - 24.5%
Operating Expenses:		
Selling Expenses	5.6%	4.2 - 7.0%
Delivery Expenses	1.5%	1.1 - 1.8%
Warehouse Expenses	2.6%	2.2 - 3.3%
General & Administrative Expenses	6.9%	6.0 - 8.6%
Occupancy Expenses	1.5%	1.0 - 2.0%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	19.1%	17.2 - 21.0%
Net Operating Profit	3.4%	2.0 - 4.7%
Non-Operating Income	2.4%	1.0 - 2.9%
Non-Operating Expenses	2.3%	1.2 - 3.0%
Net Profit Before Tax	3.1%	1.5 - 3.8%
Net Profit After Tax	1.9%	1.1 - 2.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.1%	17.2 - 21.0%
Total Operating Expense to Gross Margin	85.4%	80.4 - 89.8%
Non-People Expense to Net Sales	6.6%	5.9 - 7.5%
Non-People Expense to Gross Margin	29.4%	25.1 - 35.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.4 - 1.7%
Times Interest Earned	3.8X	2.3 - 9.2X
BALANCE SHEET		
Cash	4.6%	0.4 - 5.4%
Accounts & Notes Receivable, Trade(Net)	33.0%	27.6 - 36.7%
Inventory	45.0%	38.4 - 52.8%
Other Current Assets	3.1%	0.3 - 2.9%
Total Current Assets	85.7%	79.2 - 93.3%
All Other Assets	14.3%	6.7 - 20.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	43.6%	30.1 - 61.8%
Total Long-Term Liabilities	9.8%	2.2 - 13.5%
Total Liabilities	53.4%	35.7 - 73.3%
Total Net Worth	46.6%	26.7 - 64.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	14.93%	10.33 - 21.31%
Total Assets to Net Worth	1.78X	1.41 - 2.34X
Net Profit After Tax to Total Assets	7.40%	6.09 - 9.53%
Net Sales to Total Assets	2.73X	2.23 - 3.09X
Net Profit After Tax to Net Sales	2.70%	2.30 - 3.90%
Net Profit Before Tax to Net Worth	22.37%	15.31 - 31.07%
Net Profit Before Tax to Total Assets	10.47%	8.58 - 14.92%
EBIT to Total Assets	13.07%	10.69 - 16.90%
SALES ANALYSIS		
Net Sales ($000)	$4,948	$2,845 - 11,347
Percent Sales Change from Prior Year	15.48%	8.83 - 25.06%
Sales Mix:		
Direct Sales	10.0%	4.1 - 13.1%
Warehouse Sales - Counter and Delivery	90.0%	86.9 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	75.8%	61.0 - 90.0%
Heating & Cooling Supplies & Equipment	13.5%	1.6 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.4%	0.0 - 7.0%
Other Industrial Supplies & Equipment	0.9%	0.0 - 0.0%
Other Products	3.4%	0.0 - 3.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.2%	21.5 - 26.4%
Gross Margin on Direct Shipments	10.0%	8.1 - 13.6%
Gross Margin on Warehouse Sales	24.6%	22.3 - 26.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.14X	2.61 - 3.62X
Total Debt to Net Worth	78.3%	40.7 - 134.3%
Current Debt to Net Worth	62.8%	36.1 - 110.4%
Current Assets to Current Debt	2.55X	1.86 - 3.57X
Current Assets Minus Inventory/Curr Debt	1.22X	0.80 - 1.70X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	5.0 - 9.0
Average Invoice Size	$155	$101 - 210
Average Billing Line	$22.62	$16.44 - 36.87

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$202,496	$172,345 - 257,431
Gross Margin Per Employee	$49,807	$41,893 - 56,817
Average Compensation Per Employee	$21,952	$18,654 - 24,790
Average Fringe Benefits Per Employee	$4,064	$2,654 - 5,369
Compensation & Fringes Per Employee	$25,923	$22,542 - 30,228
Payroll to Net Sales	10.7%	8.8 - 12.4%
Fringe Benefits to Net Sales	1.9%	1.4 - 2.7%
Payroll & Fringes to Net Sales	12.9%	10.7 - 14.8%
Payroll to Gross Margin	44.8%	40.6 - 48.4%
Fringe Benefits to Gross Margin	8.3%	6.5 - 10.8%
Payroll & Fringes to Gross Margin	53.0%	48.1 - 58.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.32X	3.17 - 5.16X
No. of Days Average Inventory Carried	84 Days	71 - 115 Days
Total Cost of Goods Sold to Ave Inventory	4.91X	3.59 - 5.97X
Whse Gross Margin Return on Ave Inventory	137%	109 - 170%
Turn & Earn Profitability Index	103%	81 - 128%
Percent of Firms on LIFO	47.44%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	41 - 55 Days
Gross Margin Return on Receivables	186%	158 - 226%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.3%	60.0 - 77.9%
31-60 Days Outstanding	15.8%	12.5 - 19.3%
61-90 Days Outstanding	7.0%	4.0 - 8.8%
Over 90 Days Outstanding	8.9%	3.9 - 11.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,198	$748 - 2,059
31-60 Days Outstanding	$1,335	$671 - 2,056
61-90 Days Outstanding	$977	$588 - 2,472
Over 90 Days Outstanding	$1,530	$806 - 2,375
Total	$1,193	$803 - 1,950
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.3%	66.7 - 80.0%
31-60 Days Outstanding	15.9%	12.0 - 19.4%
61-90 Days Outstanding	7.2%	3.8 - 9.0%
Over 90 Days Outstanding	5.5%	2.9 - 7.8%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	73.6 - 78.5%
Gross Margin	24.2%	21.5 - 26.4%
Operating Expenses:		
Selling Expenses	5.6%	4.2 - 7.1%
Delivery Expenses	1.8%	1.2 - 2.4%
Warehouse Expenses	2.3%	1.6 - 2.8%
General & Administrative Expenses	8.1%	6.3 - 9.7%
Occupancy Expenses	1.6%	1.2 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	19.8%	17.8 - 22.1%
Net Operating Profit	4.2%	3.2 - 5.6%
Non-Operating Income	1.9%	0.9 - 2.7%
Non-Operating Expenses	2.0%	1.0 - 2.2%
Net Profit Before Tax	3.9%	3.2 - 5.7%
Net Profit After Tax	2.7%	2.3 - 3.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.8%	17.8 - 22.1%
Total Operating Expense to Gross Margin	82.6%	78.2 - 86.6%
Non-People Expense to Net Sales	6.9%	6.0 - 7.8%
Non-People Expense to Gross Margin	28.8%	24.6 - 32.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 1.4%
Times Interest Earned	6.5X	3.7 - 24.6X
BALANCE SHEET		
Cash	7.5%	0.8 - 11.2%
Accounts & Notes Receivable, Trade(Net)	32.1%	25.2 - 39.9%
Inventory	45.3%	37.2 - 53.5%
Other Current Assets	2.0%	0.2 - 1.4%
Total Current Assets	86.9%	82.6 - 95.0%
All Other Assets	13.1%	5.0 - 17.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.8%	23.5 - 46.1%
Total Long-Term Liabilities	9.4%	0.0 - 12.0%
Total Liabilities	45.1%	28.5 - 57.3%
Total Net Worth	54.9%	42.7 - 71.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Industrial P-V-F Firms

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	5.66%	1.69 - 11.55%
Total Assets to Net Worth	1.75X	1.47 - 2.53X
Net Profit After Tax to Total Assets	3.06%	0.94 - 6.59%
Net Sales to Total Assets	2.39X	2.12 - 2.84X
Net Profit After Tax to Net Sales	1.30%	0.40 - 2.30%
Net Profit Before Tax to Net Worth	8.46%	2.69 - 18.16%
Net Profit Before Tax to Total Assets	4.44%	0.74 - 9.47%
EBIT to Total Assets	7.49%	3.19 - 11.31%
SALES ANALYSIS		
Net Sales ($000)	$6,795	$3,766 - 15,270
Percent Sales Change from Prior Year	20.07%	7.86 - 28.09%
Sales Mix:		
Direct Sales	13.0%	4.6 - 18.7%
Warehouse Sales - Counter and Delivery	87.0%	81.3 - 95.4%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	4.6%	0.0 - 10.0%
Heating & Cooling Supplies & Equipment	2.4%	0.0 - 0.3%
Industrial P-V-F (Pipes-Valves-Fittings)	85.9%	79.5 - 100.0%
Other Industrial Supplies & Equipment	4.7%	0.0 - 8.9%
Other Products	2.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.7%	22.2 - 29.1%
Gross Margin on Direct Shipments	11.8%	10.3 - 16.6%
Gross Margin on Warehouse Sales	27.9%	24.0 - 30.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.81X	2.38 - 3.28X
Total Debt to Net Worth	74.4%	47.0 - 144.2%
Current Debt to Net Worth	67.4%	35.2 - 122.6%
Current Assets to Current Debt	2.45X	1.77 - 3.56X
Current Assets Minus Inventory/Curr Debt	1.10X	0.75 - 1.71X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.1 - 6.1
Average Invoice Size	$324	$242 - 439
Average Billing Line	$68.74	$43.52 - 122.79

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$197,975	$161,300 - 247,446
Gross Margin Per Employee	$48,294	$40,532 - 59,403
Average Compensation Per Employee	$23,206	$21,653 - 27,460
Average Fringe Benefits Per Employee	$4,160	$3,499 - 6,704
Compensation & Fringes Per Employee	$28,156	$25,090 - 32,781
Payroll to Net Sales	12.2%	10.5 - 14.2%
Fringe Benefits to Net Sales	2.3%	1.6 - 3.4%
Payroll & Fringes to Net Sales	14.4%	12.1 - 16.8%
Payroll to Gross Margin	48.9%	43.9 - 53.9%
Fringe Benefits to Gross Margin	9.8%	7.3 - 12.1%
Payroll & Fringes to Gross Margin	57.5%	50.8 - 64.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.23X	2.67 - 4.14X
No. of Days Average Inventory Carried	113 Days	88 - 136 Days
Total Cost of Goods Sold to Ave Inventory	4.19X	3.16 - 5.18X
Whse Gross Margin Return on Ave Inventory	121%	92 - 153%
Turn & Earn Profitability Index	88%	70 - 103%
Percent of Firms on LIFO	69.05%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	39 - 57 Days
Gross Margin Return on Receivables	192%	167 - 245%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.0%	57.9 - 71.2%
31-60 Days Outstanding	20.6%	18.4 - 25.0%
61-90 Days Outstanding	7.6%	3.4 - 10.4%
Over 90 Days Outstanding	6.8%	2.6 - 9.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,002	$1,287 - 2,869
31-60 Days Outstanding	$1,301	$992 - 2,796
61-90 Days Outstanding	$1,495	$565 - 2,266
Over 90 Days Outstanding	$1,490	$726 - 3,324
Total	$1,682	$1,135 - 3,052
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	62.9%	52.7 - 72.0%
31-60 Days Outstanding	21.6%	16.7 - 26.0%
61-90 Days Outstanding	8.5%	6.1 - 11.2%
Over 90 Days Outstanding	6.9%	3.2 - 9.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.4%	70.9 - 77.8%
Gross Margin	25.7%	22.2 - 29.1%
Operating Expenses:		
Selling Expenses	7.0%	6.0 - 9.0%
Delivery Expenses	2.0%	1.4 - 2.9%
Warehouse Expenses	2.8%	2.1 - 4.3%
General & Administrative Expenses	8.2%	6.7 - 10.3%
Occupancy Expenses	1.4%	0.8 - 1.8%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	22.2%	20.3 - 25.1%
Net Operating Profit	2.5%	0.8 - 4.1%
Non-Operating Income	1.5%	0.9 - 2.1%
Non-Operating Expenses	1.8%	1.1 - 2.9%
Net Profit Before Tax	1.9%	0.3 - 3.3%
Net Profit After Tax	1.3%	0.4 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.2%	20.3 - 25.1%
Total Operating Expense to Gross Margin	90.5%	86.0 - 97.0%
Non-People Expense to Net Sales	7.6%	6.3 - 8.8%
Non-People Expense to Gross Margin	29.6%	25.9 - 36.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.3%
Times Interest Earned	3.0X	1.2 - 8.0X
BALANCE SHEET		
Cash	5.5%	1.8 - 8.2%
Accounts & Notes Receivable, Trade(Net)	31.2%	25.4 - 36.6%
Inventory	47.8%	40.6 - 55.1%
Other Current Assets	2.0%	0.4 - 2.5%
Total Current Assets	86.5%	81.6 - 93.0%
All Other Assets	13.5%	7.0 - 18.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.3%	22.3 - 47.3%
Total Long-Term Liabilities	9.9%	0.3 - 13.1%
Total Liabilities	47.2%	32.2 - 60.5%
Total Net Worth	52.8%	39.5 - 67.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	5.11%	-0.42 - 15.92%
Total Assets to Net Worth	2.42X	1.40 - 3.36X
Net Profit After Tax to Total Assets	2.98%	-2.47 - 8.99%
Net Sales to Total Assets	2.61X	2.28 - 3.05X
Net Profit After Tax to Net Sales	1.20%	-0.80 - 2.50%
Net Profit Before Tax to Net Worth	7.17%	-0.56 - 30.68%
Net Profit Before Tax to Total Assets	3.98%	-2.46 - 13.99%
EBIT to Total Assets	7.06%	-0.19 - 14.44%
SALES ANALYSIS		
Net Sales ($000)	$2,285	$1,750 - 3,477
Percent Sales Change from Prior Year	19.14%	8.90 - 24.80%
Sales Mix:		
Direct Sales	12.7%	Insufficient Data
Warehouse Sales - Counter and Delivery	87.3%	Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	3.3%	0.0 - 8.8%
Heating & Cooling Supplies & Equipment	2.1%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	86.1%	78.5 - 97.5%
Other Industrial Supplies & Equipment	5.3%	0.0 - 9.5%
Other Products	3.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.3%	24.4 - 28.6%
Gross Margin on Direct Shipments	13.0%	Insufficient Data
Gross Margin on Warehouse Sales	29.1%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.27X	2.52 - 3.58X
Total Debt to Net Worth	134.7%	36.9 - 187.5%
Current Debt to Net Worth	85.6%	33.9 - 175.0%
Current Assets to Current Debt	2.11X	1.57 - 3.37X
Current Assets Minus Inventory/Curr Debt	1.02X	0.73 - 1.47X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	4.2 - 9.5
Average Invoice Size	$253	$230 - 382
Average Billing Line	$39.64	$28.83 - 58.94

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$172,143	$145,312 - 215,144
Gross Margin Per Employee	$43,659	$39,881 - 60,804
Average Compensation Per Employee	$22,990	$20,628 - 26,818
Average Fringe Benefits Per Employee	$3,845	$2,546 - 6,189
Compensation & Fringes Per Employee	$25,508	$22,415 - 31,687
Payroll to Net Sales	13.3%	12.6 - 14.0%
Fringe Benefits to Net Sales	2.6%	1.4 - 3.9%
Payroll & Fringes to Net Sales	15.1%	11.3 - 16.9%
Payroll to Gross Margin	50.1%	46.5 - 53.3%
Fringe Benefits to Gross Margin	9.2%	5.2 - 14.2%
Payroll & Fringes to Gross Margin	56.8%	41.8 - 66.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.56X	Insufficient Data
No. of Days Average Inventory Carried	85 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	4.48X	3.62 - 6.14X
Whse Gross Margin Return on Ave Inventory	195%	Insufficient Data
Turn & Earn Profitability Index	137%	Insufficient Data
Percent of Firms on LIFO	45.45%	
ACCOUNTS RECEIVABLE		
Average Collection Period	40 Days	39 - 56 Days
Gross Margin Return on Receivables	251%	179 - 269%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.1%	58.8 - 72.7%
31-60 Days Outstanding	22.8%	19.8 - 25.6%
61-90 Days Outstanding	6.4%	2.4 - 10.1%
Over 90 Days Outstanding	5.7%	1.4 - 9.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstandin)	$1,623	$752 - 1,952
31-60 Days Outstanding	$1,164	$983 - 1,439
61-90 Days Outstanding	$665	$456 - 1,492
Over 90 Days Outstanding	$1,044	$579 - 3,978
Total	$1,353	$781 - 1,667
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	59.3%	52.4 - 68.9%
31-60 Days Outstanding	25.5%	20.7 - 32.0%
61-90 Days Outstanding	9.7%	7.4 - 12.3%
Over 90 Days Outstanding	5.4%	1.9 - 8.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.0%	71.4 - 75.6%
Gross Margin	26.3%	24.4 - 28.6%
Operating Expenses:		
Selling Expenses	7.6%	6.7 - 10.3%
Delivery Expenses	2.0%	0.8 - 3.0%
Warehouse Expenses	4.2%	2.6 - 4.8%
General & Administrative Expenses	9.8%	7.4 - 10.9%
Occupancy Expenses	1.0%	0.0 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	24.4%	22.6 - 26.4%
Net Operating Profit	1.9%	0.3 - 2.9%
Non-Operating Income	1.4%	0.7 - 2.1%
Non-Operating Expenses	2.5%	1.2 - 3.3%
Net Profit Before Tax	1.2%	-1.2 - 2.2%
Net Profit After Tax	1.2%	-0.8 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.4%	22.6 - 26.4%
Total Operating Expense to Gross Margin	95.3%	88.8 - 98.8%
Non-People Expense to Net Sales	8.1%	6.8 - 9.7%
Non-People Expense to Gross Margin	28.6%	27.8 - 34.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.3 - 2.2%
Times Interest Earned	1.7X	-0.2 - 6.6X
BALANCE SHEET		
Cash	5.8%	2.0 - 7.9%
Accounts & Notes Receivable, Trade(Net)	31.9%	25.5 - 41.2%
Inventory	44.8%	34.8 - 54.8%
Other Current Assets	2.7%	0.7 - 3.2%
Total Current Assets	85.3%	78.8 - 94.6%
All Other Assets	14.7%	5.4 - 21.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.4%	23.9 - 59.0%
Total Long-Term Liabilities	13.7%	0.0 - 20.5%
Total Liabilities	54.1%	28.3 - 70.0%
Total Net Worth	45.9%	30.0 - 71.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	5.77%	1.60 - 10.88%
Total Assets to Net Worth	1.71X	1.43 - 2.25X
Net Profit After Tax to Total Assets	3.14%	0.80 - 5.96%
Net Sales to Total Assets	2.32X	1.99 - 2.66X
Net Profit After Tax to Net Sales	1.20%	0.30 - 3.20%
Net Profit Before Tax to Net Worth	8.41%	0.91 - 15.97%
Net Profit Before Tax to Total Assets	4.52%	0.22 - 9.86%
EBIT to Total Assets	7.23%	0.90 - 10.86%
SALES ANALYSIS		
Net Sales ($000)	$6,355	$4,976 - 8,684
Percent Sales Change from Prior Year	21.02%	5.15 - 33.35%
Sales Mix:		
Direct Sales	7.9%	1.7 - 12.1%
Warehouse Sales - Counter and Delivery	92.0%	87.9 - 98.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	5.0%	0.0 - 10.0%
Heating & Cooling Supplies & Equipment	1.2%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	85.1%	72.0 - 100.0%
Other Industrial Supplies & Equipment	5.0%	0.0 - 10.0%
Other Products	3.7%	0.0 - 5.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.8%	24.5 - 30.3%
Gross Margin on Direct Shipments	10.4%	5.4 - 18.5%
Gross Margin on Warehouse Sales	29.2%	24.4 - 31.3%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.57X	2.22 - 3.16X
Total Debt to Net Worth	71.0%	43.3 - 124.8%
Current Debt to Net Worth	62.3%	27.8 - 116.3%
Current Assets to Current Debt	2.45X	1.85 - 4.36X
Current Assets Minus Inventory/Curr Debt	1.04X	0.73 - 1.94X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.3 - 7.3
Average Invoice Size	$318	$231 - 400
Average Billing Line	$50.99	$35.05 - 124.19

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$165,457	$152,509 - 209,901
Gross Margin Per Employee	$47,177	$36,929 - 56,297
Average Compensation Per Employee	$23,598	$22,393 - 26,118
Average Fringe Benefits Per Employee	$4,203	$2,791 - 7,149
Compensation & Fringes Per Employee	$28,744	$24,820 - 32,885
Payroll to Net Sales	14.1%	11.9 - 15.4%
Fringe Benefits to Net Sales	2.8%	1.9 - 3.6%
Payroll & Fringes to Net Sales	16.0%	14.9 - 17.8%
Payroll to Gross Margin	49.8%	46.4 - 56.5%
Fringe Benefits to Gross Margin	10.3%	6.4 - 12.1%
Payroll & Fringes to Gross Margin	59.9%	55.1 - 69.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.81X	2.41 - 3.88X
No. of Days Average Inventory Carried	130 Days	94 - 151 Days
Total Cost of Goods Sold to Ave Inventory	3.16X	2.76 - 4.60X
Whse Gross Margin Return on Ave Inventory	117%	85 - 169%
Turn & Earn Profitability Index	84%	65 - 103%
Percent of Firms on LIFO	68.75%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	36 - 57 Days
Gross Margin Return on Receivables	209%	175 - 223%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.1%	59.6 - 70.1%
31-60 Days Outstanding	20.3%	18.1 - 26.0%
61-90 Days Outstanding	7.8%	4.7 - 10.6%
Over 90 Days Outstanding	5.8%	2.5 - 9.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,452	$1,095 - 2,768
31-60 Days Outstanding	$1,257	$863 - 2,681
61-90 Days Outstanding	$1,652	$523 - 3,219
Over 90 Days Outstanding	$1,400	$555 - 2,761
Total	$1,304	$901 - 2,974
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	62.4%	51.3 - 72.5%
31-60 Days Outstanding	22.3%	18.2 - 25.9%
61-90 Days Outstanding	8.3%	5.6 - 11.4%
Over 90 Days Outstanding	7.0%	1.9 - 11.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES $4,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.0%	69.7 - 75.5%
Gross Margin	27.8%	24.5 - 30.3%
Operating Expenses:		
Selling Expenses	6.2%	5.1 - 9.2%
Delivery Expenses	2.2%	1.4 - 3.1%
Warehouse Expenses	3.3%	2.4 - 4.3%
General & Administrative Expenses	9.7%	8.2 - 11.2%
Occupancy Expenses	1.2%	0.8 - 2.0%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	23.0%	21.7 - 27.3%
Net Operating Profit	3.5%	0.0 - 7.3%
Non-Operating Income	1.5%	0.6 - 2.5%
Non-Operating Expenses	1.7%	1.3 - 3.0%
Net Profit Before Tax	2.2%	0.4 - 6.9%
Net Profit After Tax	1.2%	0.3 - 3.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.0%	21.7 - 27.3%
Total Operating Expense to Gross Margin	87.6%	75.4 - 101.1%
Non-People Expense to Net Sales	8.2%	6.1 - 9.3%
Non-People Expense to Gross Margin	29.1%	21.4 - 36.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.6%
Times Interest Earned	2.8X	0.6 - 5.2X
BALANCE SHEET		
Cash	6.5%	2.3 - 9.5%
Accounts & Notes Receivable, Trade(Net)	28.2%	24.2 - 32.7%
Inventory	51.8%	42.8 - 62.3%
Other Current Assets	2.0%	0.1 - 2.4%
Total Current Assets	88.5%	85.1 - 93.3%
All Other Assets	11.5%	6.6 - 14.9%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.7%	20.6 - 46.8%
Total Long-Term Liabilities	6.8%	0.4 - 12.3%
Total Liabilities	44.5%	30.1 - 55.4%
Total Net Worth	55.5%	44.6 - 69.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.43%	2.01 - 10.74%
Total Assets to Net Worth	1.79X	1.52 - 2.19X
Net Profit After Tax to Total Assets	3.23%	1.25 - 6.82%
Net Sales to Total Assets	2.33X	2.10 - 2.89X
Net Profit After Tax to Net Sales	1.50%	0.60 - 2.20%
Net Profit Before Tax to Net Worth	11.07%	2.90 - 18.16%
Net Profit Before Tax to Total Assets	5.54%	1.54 - 9.49%
EBIT to Total Assets	8.52%	3.87 - 11.38%
SALES ANALYSIS		
Net Sales ($000)	$20,252	$14,652 - 27,360
Percent Sales Change from Prior Year	21.43%	10.48 - 28.46%
Sales Mix:		
Direct Sales	18.2%	11.3 - 26.4%
Warehouse Sales - Counter and Delivery	81.8%	73.6 - 88.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	5.2%	0.0 - 1.0%
Heating & Cooling Supplies & Equipment	3.8%	0.0 - 5.0%
Industrial P-V-F (Pipes-Valves-Fittings)	86.6%	80.0 - 100.0%
Other Industrial Supplies & Equipment	4.0%	0.0 - 8.6%
Other Products	0.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.0%	20.9 - 26.8%
Gross Margin on Direct Shipments	11.5%	10.7 - 16.6%
Gross Margin on Warehouse Sales	24.3%	22.4 - 27.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.89X	2.56 - 3.24X
Total Debt to Net Worth	79.4%	52.1 - 119.2%
Current Debt to Net Worth	57.9%	35.7 - 85.4%
Current Assets to Current Debt	2.61X	2.04 - 3.56X
Current Assets Minus Inventory/Curr Debt	1.19X	0.95 - 1.81X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.4	3.0 - 5.0
Average Invoice Size	$396	$260 - 481
Average Billing Line	$84.62	$73.55 - 132.45

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$245,469	$207,289 - 273,677
Gross Margin Per Employee	$52,994	$46,918 - 63,588
Average Compensation Per Employee	$22,854	$21,180 - 28,949
Average Fringe Benefits Per Employee	$4,374	$3,940 - 6,482
Compensation & Fringes Per Employee	$27,678	$25,341 - 34,621
Payroll to Net Sales	10.0%	8.3 - 11.4%
Fringe Benefits to Net Sales	2.0%	1.6 - 2.4%
Payroll & Fringes to Net Sales	12.1%	9.9 - 13.7%
Payroll to Gross Margin	44.3%	40.2 - 52.6%
Fringe Benefits to Gross Margin	8.5%	7.4 - 11.3%
Payroll & Fringes to Gross Margin	54.9%	47.6 - 64.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.29X	2.89 - 4.09X
No. of Days Average Inventory Carried	111 Days	89 - 126 Days
Total Cost of Goods Sold to Ave Inventory	4.42X	3.56 - 5.40X
Whse Gross Margin Return on Ave Inventory	113%	92 - 132%
Turn & Earn Profitability Index	84%	72 - 98%
Percent of Firms on LIFO	86.67%	
ACCOUNTS RECEIVABLE		
Average Collection Period	52 Days	46 - 59 Days
Gross Margin Return on Receivables	167%	145 - 192%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.3%	49.3 - 77.2%
31-60 Days Outstanding	19.4%	14.8 - 23.7%
61-90 Days Outstanding	8.3%	3.2 - 14.2%
Over 90 Days Outstanding	9.0%	4.4 - 14.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,710	$2,001 - 4,552
31-60 Days Outstanding	$2,773	$2,196 - 6,736
61-90 Days Outstanding	$1,991	$1,301 - 6,284
Over 90 Days Outstanding	$2,047	$1,512 - 5,418
Total	$3,389	$1,928 - 4,773
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	66.9%	59.9 - 75.5%
31-60 Days Outstanding	17.3%	14.3 - 21.3%
61-90 Days Outstanding	7.7%	4.6 - 10.8%
Over 90 Days Outstanding	8.1%	5.3 - 9.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	78.0%	73.2 - 79.1%
Gross Margin	23.0%	20.9 - 26.8%
Operating Expenses:		
Selling Expenses	7.0%	6.1 - 8.4%
Delivery Expenses	1.7%	1.4 - 2.5%
Warehouse Expenses	2.4%	2.0 - 2.8%
General & Administrative Expenses	7.0%	4.7 - 7.6%
Occupancy Expenses	1.5%	1.3 - 1.7%
Other Operating Expenses	0.0%	0.0 - 0.3%
Total Operating Expenses	20.1%	18.6 - 20.9%
Net Operating Profit	2.2%	1.1 - 3.9%
Non-Operating Income	1.5%	1.2 - 2.1%
Non-Operating Expenses	1.5%	0.9 - 2.4%
Net Profit Before Tax	2.0%	0.9 - 3.4%
Net Profit After Tax	1.5%	0.6 - 2.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.1%	18.6 - 20.9%
Total Operating Expense to Gross Margin	90.9%	85.2 - 94.2%
Non-People Expense to Net Sales	6.8%	6.0 - 8.5%
Non-People Expense to Gross Margin	32.0%	26.7 - 39.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.2 - 1.1%
Times Interest Earned	6.9X	1.7 - 11.3X
BALANCE SHEET		
Cash	4.1%	1.3 - 6.4%
Accounts & Notes Receivable, Trade(Net)	33.9%	29.4 - 38.4%
Inventory	45.9%	39.4 - 50.2%
Other Current Assets	1.5%	0.3 - 2.8%
Total Current Assets	85.3%	79.9 - 91.5%
All Other Assets	14.7%	8.4 - 20.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.3%	20.0 - 41.2%
Total Long-Term Liabilities	10.1%	3.4 - 14.6%
Total Liabilities	44.4%	34.2 - 54.3%
Total Net Worth	55.6%	45.7 - 65.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.32%	7.26 - 16.30%
Total Assets to Net Worth	1.64X	1.45 - 2.21X
Net Profit After Tax to Total Assets	6.56%	4.16 - 8.80%
Net Sales to Total Assets	2.37X	2.11 - 2.75X
Net Profit After Tax to Net Sales	2.30%	1.70 - 4.10%
Net Profit Before Tax to Net Worth	18.16%	11.29 - 31.00%
Net Profit Before Tax to Total Assets	8.93%	6.14 - 15.36%
EBIT to Total Assets	11.45%	8.31 - 16.72%
SALES ANALYSIS		
Net Sales ($000)	$7,723	$2,997 - 13,772
Percent Sales Change from Prior Year	20.07%	15.49 - 31.29%
Sales Mix:		
Direct Sales	10.4%	1.4 - 13.8%
Warehouse Sales - Counter and Delivery	89.6%	86.2 - 98.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	3.4%	0.0 - 5.0%
Heating & Cooling Supplies & Equipment	3.7%	0.0 - 2.5%
Industrial P-V-F (Pipes-Valves-Fittings)	88.5%	80.0 - 100.0%
Other Industrial Supplies & Equipment	2.1%	0.0 - 0.0%
Other Products	2.3%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	28.1%	25.1 - 30.2%
Gross Margin on Direct Shipments	11.4%	10.0 - 15.9%
Gross Margin on Warehouse Sales	28.7%	26.2 - 31.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.66X	2.31 - 3.34X
Total Debt to Net Worth	64.0%	45.5 - 121.0%
Current Debt to Net Worth	54.2%	35.5 - 103.5%
Current Assets to Current Debt	2.65X	1.96 - 3.95X
Current Assets Minus Inventory/Curr Debt	1.27X	0.93 - 2.06X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.5 - 7.3
Average Invoice Size	$300	$249 - 429
Average Billing Line	$50.99	$43.77 - 76.88

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$215,392	$169,546 - 261,075
Gross Margin Per Employee	$56,230	$47,585 - 64,938
Average Compensation Per Employee	$25,934	$22,963 - 29,916
Average Fringe Benefits Per Employee	$5,488	$2,767 - 7,197
Compensation & Fringes Per Employee	$29,760	$25,480 - 36,682
Payroll to Net Sales	12.6%	10.0 - 14.3%
Fringe Benefits to Net Sales	2.3%	1.6 - 3.4%
Payroll & Fringes to Net Sales	14.4%	11.2 - 16.8%
Payroll to Gross Margin	45.9%	42.4 - 49.9%
Fringe Benefits to Gross Margin	9.3%	6.1 - 12.1%
Payroll & Fringes to Gross Margin	54.4%	47.6 - 58.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.23X	2.67 - 4.17X
No. of Days Average Inventory Carried	113 Days	87 - 137 Days
Total Cost of Goods Sold to Ave Inventory	4.39X	3.19 - 5.27X
Whse Gross Margin Return on Ave Inventory	132%	112 - 169%
Turn & Earn Profitability Index	97%	82 - 110%
Percent of Firms on LIFO	55.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	55 Days	42 - 59 Days
Gross Margin Return on Receivables	178%	167 - 213%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.8%	57.5 - 77.4%
31-60 Days Outstanding	21.6%	19.7 - 24.9%
61-90 Days Outstanding	8.5%	2.6 - 13.2%
Over 90 Days Outstanding	5.0%	1.6 - 8.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,329	$1,650 - 2,963
31-60 Days Outstanding	$2,394	$1,133 - 3,477
61-90 Days Outstanding	$1,825	$1,150 - 2,887
Over 90 Days Outstanding	$1,565	$604 - 2,949
Total	$2,007	$1,360 - 3,091
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	63.9%	52.9 - 74.4%
31-60 Days Outstanding	21.6%	14.6 - 27.8%
61-90 Days Outstanding	8.7%	6.0 - 12.1%
Over 90 Days Outstanding	5.8%	2.6 - 7.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	71.8%	69.8 - 74.9%
Gross Margin	28.1%	25.1 - 30.2%
Operating Expenses:		
Selling Expenses	7.2%	5.3 - 8.9%
Delivery Expenses	2.1%	1.5 - 2.8%
Warehouse Expenses	2.7%	2.2 - 4.1%
General & Administrative Expenses	8.9%	6.8 - 9.8%
Occupancy Expenses	1.5%	1.2 - 2.0%
Other Operating Expenses	0.2%	0.0 - 0.2%
Total Operating Expenses	23.4%	20.0 - 24.5%
Net Operating Profit	4.7%	2.5 - 7.3%
Non-Operating Income	1.5%	1.2 - 2.0%
Non-Operating Expenses	2.0%	1.0 - 2.6%
Net Profit Before Tax	3.3%	2.3 - 7.2%
Net Profit After Tax	2.3%	1.7 - 4.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.4%	20.0 - 24.5%
Total Operating Expense to Gross Margin	86.8%	75.2 - 90.3%
Non-People Expense to Net Sales	7.6%	5.9 - 8.7%
Non-People Expense to Gross Margin	26.4%	20.7 - 30.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.3 - 1.1%
Times Interest Earned	7.8X	3.4 - 21.1X
BALANCE SHEET		
Cash	7.5%	2.6 - 11.3%
Accounts & Notes Receivable, Trade(Net)	33.6%	26.1 - 41.4%
Inventory	44.2%	36.4 - 49.0%
Other Current Assets	1.7%	0.0 - 2.5%
Total Current Assets	87.1%	81.0 - 93.2%
All Other Assets	12.9%	6.8 - 19.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.3%	22.3 - 43.1%
Total Long-Term Liabilities	7.4%	0.1 - 11.0%
Total Liabilities	42.6%	31.0 - 54.5%
Total Net Worth	57.4%	45.5 - 69.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Plumbing Supplies & Equipment

and Industrial P-V-F Firms

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.76%	1.94 - 12.56%
Total Assets to Net Worth	1.61X	1.41 - 2.78X
Net Profit After Tax to Total Assets	3.85%	1.29 - 6.42%
Net Sales to Total Assets	2.47X	2.17 - 2.88X
Net Profit After Tax to Net Sales	1.40%	0.50 - 2.50%
Net Profit Before Tax to Net Worth	11.54%	2.64 - 22.04%
Net Profit Before Tax to Total Assets	5.21%	1.52 - 10.66%
EBIT to Total Assets	9.61%	3.52 - 13.55%
SALES ANALYSIS		
Net Sales ($000)	$7,672	$4,103 - 16,240
Percent Sales Change from Prior Year	14.22%	6.62 - 23.58%
Sales Mix:		
Direct Sales	12.9%	5.0 - 20.1%
Warehouse Sales - Counter and Delivery	87.1%	79.9 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	40.1%	34.6 - 49.5%
Heating & Cooling Supplies & Equipment	19.8%	10.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	28.7%	20.0 - 38.5%
Other Industrial Supplies & Equipment	6.0%	0.0 - 10.0%
Other Products	5.5%	0.0 - 9.1%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.7%	21.7 - 25.5%
Gross Margin on Direct Shipments	10.8%	9.3 - 16.8%
Gross Margin on Warehouse Sales	25.1%	23.7 - 27.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.08X	2.43 - 3.37X
Total Debt to Net Worth	61.7%	41.3 - 177.5%
Current Debt to Net Worth	53.6%	28.3 - 149.3%
Current Assets to Current Debt	2.72X	1.60 - 3.92X
Current Assets Minus Inventory/Curr Debt	1.29X	0.63 - 1.67X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.3	4.7 - 9.0
Average Invoice Size	$151	$127 - 253
Average Billing Line	$28.37	$13.68 - 50.60

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$191,422	$160,351 - 231,431
Gross Margin Per Employee	$44,856	$36,443 - 54,712
Average Compensation Per Employee	$21,657	$18,943 - 25,195
Average Fringe Benefits Per Employee	$4,044	$3,373 - 5,178
Compensation & Fringes Per Employee	$25,128	$22,079 - 31,712
Payroll to Net Sales	11.4%	10.3 - 13.2%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.6%
Payroll & Fringes to Net Sales	13.7%	11.6 - 15.4%
Payroll to Gross Margin	48.5%	44.0 - 53.9%
Fringe Benefits to Gross Margin	9.1%	7.6 - 10.8%
Payroll & Fringes to Gross Margin	57.2%	52.3 - 61.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.40X	2.94 - 4.66X
No. of Days Average Inventory Carried	107 Days	78 - 124 Days
Total Cost of Goods Sold to Ave Inventory	4.13X	3.47 - 6.12X
Whse Gross Margin Return on Ave Inventory	111%	95 - 148%
Turn & Earn Profitability Index	87%	71 - 117%
Percent of Firms on LIFO	48.78%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	43 - 58 Days
Gross Margin Return on Receivables	173%	150 - 211%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.8%	54.9 - 77.8%
31-60 Days Outstanding	17.0%	12.6 - 20.3%
61-90 Days Outstanding	7.9%	4.2 - 10.1%
Over 90 Days Outstanding	8.2%	4.1 - 12.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,219	$843 - 1,905
31-60 Days Outstanding	$1,476	$574 - 2,200
61-90 Days Outstanding	$1,314	$655 - 2,088
Over 90 Days Outstanding	$1,488	$552 - 4,282
Total	$1,325	$973 - 1,907
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.6%	64.2 - 79.7%
31-60 Days Outstanding	15.3%	9.9 - 20.7%
61-90 Days Outstanding	7.9%	4.4 - 10.0%
Over 90 Days Outstanding	6.2%	2.5 - 8.7%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	74.5 - 78.3%
Gross Margin	23.7%	21.7 - 25.5%
Operating Expenses:		
Selling Expenses	6.0%	4.8 - 6.4%
Delivery Expenses	1.7%	1.3 - 2.6%
Warehouse Expenses	2.5%	1.9 - 3.4%
General & Administrative Expenses	8.3%	6.2 - 9.4%
Occupancy Expenses	2.0%	1.1 - 2.5%
Other Operating Expenses	0.0%	0.0 - 0.1%
Total Operating Expenses	21.3%	18.4 - 23.8%
Net Operating Profit	2.5%	0.7 - 4.2%
Non-Operating Income	1.9%	0.9 - 2.4%
Non-Operating Expenses	1.6%	1.1 - 2.9%
Net Profit Before Tax	1.8%	0.5 - 4.5%
Net Profit After Tax	1.4%	0.5 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.3%	18.4 - 23.8%
Total Operating Expense to Gross Margin	90.0%	82.6 - 97.1%
Non-People Expense to Net Sales	7.4%	6.2 - 8.5%
Non-People Expense to Gross Margin	31.8%	27.2 - 36.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.4 - 2.0%
Times Interest Earned	2.0X	1.4 - 9.9X
BALANCE SHEET		
Cash	4.6%	0.4 - 6.4%
Accounts & Notes Receivable, Trade(Net)	31.7%	24.2 - 36.9%
Inventory	47.8%	40.4 - 55.9%
Other Current Assets	1.1%	0.2 - 1.7%
Total Current Assets	85.3%	80.2 - 92.7%
All Other Assets	14.7%	7.3 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.0%	21.4 - 56.3%
Total Long-Term Liabilities	7.0%	0.3 - 11.5%
Total Liabilities	44.9%	29.9 - 64.3%
Total Net Worth	55.1%	35.7 - 70.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	1.52%	Insufficient Data
Total Assets to Net Worth	2.14X	1.47 - 3.74X
Net Profit After Tax to Total Assets	0.83%	Insufficient Data
Net Sales to Total Assets	2.13X	1.61 - 2.84X
Net Profit After Tax to Net Sales	0.30%	Insufficient Data
Net Profit Before Tax to Net Worth	1.12%	-7.86 - 7.30%
Net Profit Before Tax to Total Assets	0.76%	-4.87 - 2.79%
EBIT to Total Assets	2.67%	Insufficient Data
SALES ANALYSIS		
Net Sales ($000)	$1,847	$1,246 - 2,281
Percent Sales Change from Prior Year	1.92%	Insufficient Data
Sales Mix:		
Direct Sales	8.1%	Insufficient Data
Warehouse Sales - Counter and Delivery	91.9%	Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	39.5%	Insufficient Data
Heating & Cooling Supplies & Equipment	30.3%	Insufficient Data
Industrial P-V-F (Pipes-Valves-Fittings)	21.7%	Insufficient Data
Other Industrial Supplies & Equipment	7.3%	Insufficient Data
Other Products	1.2%	Insufficient Data
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.8%	Insufficient Data
Gross Margin on Direct Shipments	20.0%	Insufficient Data
Gross Margin on Warehouse Sales	27.1%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.35X	1.93 - 2.89X
Total Debt to Net Worth	114.1%	47.4 - 273.8%
Current Debt to Net Worth	80.8%	35.9 - 254.0%
Current Assets to Current Debt	2.40X	1.46 - 3.25X
Current Assets Minus Inventory/Curr Debt	0.64X	0.48 - 1.07X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.5	Insufficient Data
Average Invoice Size	$77	Insufficient Data
Average Billing Line	$9.30	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$128,312	Insufficient Data
Gross Margin Per Employee	$32,492	Insufficient Data
Average Compensation Per Employee	$15,955	Insufficient Data
Average Fringe Benefits Per Employee	$3,048	Insufficient Data
Compensation & Fringes Per Employee	$18,468	Insufficient Data
Payroll to Net Sales	14.3%	Insufficient Data
Fringe Benefits to Net Sales	2.1%	Insufficient Data
Payroll & Fringes to Net Sales	14.6%	0.0 - 16.8%
Payroll to Gross Margin	53.7%	Insufficient Data
Fringe Benefits to Gross Margin	7.8%	Insufficient Data
Payroll & Fringes to Gross Margin	57.2%	0.0 - 65.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.04X	Insufficient Data
No. of Days Average Inventory Carried	179 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	2.76X	Insufficient Data
Whse Gross Margin Return on Ave Inventory	88%	Insufficient Data
Turn & Earn Profitability Index	61%	Insufficient Data
Percent of Firms on LIFO	14.29%	
ACCOUNTS RECEIVABLE		
Average Collection Period	39 Days	Insufficient Data
Gross Margin Return on Receivables	240%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	76.1%	Insufficient Data
31-60 Days Outstanding	11.4%	Insufficient Data
61-90 Days Outstanding	3.4%	Insufficient Data
Over 90 Days Outstanding	9.1%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)	$445	Insufficient Data
31-60 Days Outstanding	$339	Insufficient Data
61-90 Days Outstanding	$526	Insufficient Data
Over 90 Days Outstanding	$548	Insufficient Data
Total	$439	Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	78.6%	Insufficient Data
31-60 Days Outstanding	12.5%	Insufficient Data
61-90 Days Outstanding	4.1%	Insufficient Data
Over 90 Days Outstanding	4.8%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	74.8%	Insufficient Data
Gross Margin	26.8%	Insufficient Data
Operating Expenses:		
Selling Expenses	6.3%	Insufficient Data
Delivery Expenses	2.7%	Insufficient Data
Warehouse Expenses	2.1%	Insufficient Data
General & Administrative Expenses	8.7%	Insufficient Data
Occupancy Expenses	2.8%	Insufficient Data
Other Operating Expenses	1.1%	Insufficient Data
Total Operating Expenses	25.3%	Insufficient Data
Net Operating Profit	0.7%	Insufficient Data
Non-Operating Income	1.6%	Insufficient Data
Non-Operating Expenses	2.3%	Insufficient Data
Net Profit Before Tax	0.3%	Insufficient Data
Net Profit After Tax	0.3%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.3%	Insufficient Data
Total Operating Expense to Gross Margin	97.3%	Insufficient Data
Non-People Expense to Net Sales	10.2%	Insufficient Data
Non-People Expense to Gross Margin	37.6%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	1.8%	Insufficient Data
Times Interest Earned	1.2X	Insufficient Data
BALANCE SHEET		
Cash	2.9%	0.4 - 6.5%
Accounts & Notes Receivable, Trade(Net)	22.2%	17.2 - 25.2%
Inventory	63.6%	55.8 - 73.5%
Other Current Assets	2.2%	0.3 - 4.4%
Total Current Assets	91.0%	86.4 - 96.4%
All Other Assets	9.0%	3.6 - 13.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	43.2%	25.1 - 68.0%
Total Long-Term Liabilities	7.5%	0.0 - 15.6%
Total Liabilities	50.8%	32.1 - 73.3%
Total Net Worth	49.2%	26.8 - 67.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.54%	5.22 - 12.06%
Total Assets to Net Worth	1.68X	1.24 - 2.77X
Net Profit After Tax to Total Assets	5.36%	2.17 - 6.42%
Net Sales to Total Assets	2.40X	2.02 - 3.56X
Net Profit After Tax to Net Sales	1.70%	0.90 - 2.70%
Net Profit Before Tax to Net Worth	13.64%	7.15 - 17.42%
Net Profit Before Tax to Total Assets	8.73%	2.66 - 10.91%
EBIT to Total Assets	10.13%	4.53 - 12.41%
SALES ANALYSIS		
Net Sales ($000)	$4,740	$3,913 - 5,862
Percent Sales Change from Prior Year	17.29%	11.30 - 28.85%
Sales Mix:		
Direct Sales	6.2%	2.5 - 6.6%
Warehouse Sales - Counter and Delivery	93.8%	93.4 - 97.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	42.7%	38.9 - 50.0%
Heating & Cooling Supplies & Equipment	21.3%	10.3 - 33.8%
Industrial P-V-F (Pipes-Valves-Fittings)	27.0%	20.0 - 35.0%
Other Industrial Supplies & Equipment	3.4%	0.0 - 8.8%
Other Products	5.5%	0.0 - 10.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.1%	24.0 - 26.4%
Gross Margin on Direct Shipments	10.0%	7.6 - 13.2%
Gross Margin on Warehouse Sales	26.0%	24.8 - 28.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.19X	2.31 - 4.13X
Total Debt to Net Worth	68.1%	24.0 - 176.9%
Current Debt to Net Worth	52.0%	20.7 - 137.0%
Current Assets to Current Debt	3.32X	1.61 - 4.97X
Current Assets Minus Inventory/Curr Debt	1.42X	0.81 - 2.48X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	9.0	5.4 - 10.8
Average Invoice Size	$134	$127 - 151
Average Billing Line	$18.48	$12.70 - 32.60

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$167,434	$158,586 - 230,630
Gross Margin Per Employee	$45,333	$39,473 - 56,445
Average Compensation Per Employee	$21,519	$19,409 - 25,711
Average Fringe Benefits Per Employee	$4,537	$3,981 - 6,253
Compensation & Fringes Per Employee	$26,697	$23,481 - 31,964
Payroll to Net Sales	12.0%	11.3 - 13.4%
Fringe Benefits to Net Sales	2.6%	2.0 - 2.9%
Payroll & Fringes to Net Sales	14.7%	13.9 - 16.3%
Payroll to Gross Margin	48.5%	45.1 - 53.5%
Fringe Benefits to Gross Margin	9.4%	8.8 - 11.4%
Payroll & Fringes to Gross Margin	58.2%	55.2 - 62.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.76X	3.40 - 5.25X
No. of Days Average Inventory Carried	97 Days	69 - 107 Days
Total Cost of Goods Sold to Ave Inventory	4.28X	3.68 - 6.59X
Whse Gross Margin Return on Ave Inventory	137%	117 - 215%
Turn & Earn Profitability Index	98%	89 - 152%
Percent of Firms on LIFO	41.67%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	42 - 65 Days
Gross Margin Return on Receivables	196%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.4%	54.7 - 85.6%
31-60 Days Outstanding	15.1%	8.0 - 20.1%
61-90 Days Outstanding	9.7%	3.7 - 15.7%
Over 90 Days Outstanding	7.9%	4.7 - 13.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$935	Insufficient Data
31-60 Days Outstanding	$800	Insufficient Data
61-90 Days Outstanding	$699	Insufficient Data
Over 90 Days Outstanding	$1,556	Insufficient Data
Total	$1,181	Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.1%	Insufficient Data
31-60 Days Outstanding	18.9%	Insufficient Data
61-90 Days Outstanding	9.2%	Insufficient Data
Over 90 Days Outstanding	3.8%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $3,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.3%	73.6 - 76.0%
Gross Margin	25.1%	24.0 - 26.4%
Operating Expenses:		
Selling Expenses	6.1%	4.1 - 8.6%
Delivery Expenses	2.8%	1.3 - 3.1%
Warehouse Expenses	3.0%	1.8 - 4.0%
General & Administrative Expenses	9.4%	9.2 - 10.9%
Occupancy Expenses	2.3%	1.7 - 2.5%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	23.6%	21.4 - 25.0%
Net Operating Profit	1.8%	0.0 - 3.2%
Non-Operating Income	1.9%	0.6 - 2.7%
Non-Operating Expenses	2.2%	1.1 - 2.8%
Net Profit Before Tax	1.7%	-0.2 - 2.6%
Net Profit After Tax	1.7%	0.9 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.6%	21.4 - 25.0%
Total Operating Expense to Gross Margin	92.3%	88.6 - 100.2%
Non-People Expense to Net Sales	8.3%	7.5 - 8.9%
Non-People Expense to Gross Margin	31.8%	29.7 - 36.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.3%	0.5 - 1.9%
Times Interest Earned	2.0X	1.0 - 7.1X
BALANCE SHEET		
Cash	6.5%	0.0 - 11.0%
Accounts & Notes Receivable, Trade(Net)	32.9%	26.3 - 39.6%
Inventory	43.6%	32.6 - 50.1%
Other Current Assets	0.6%	0.2 - 1.0%
Total Current Assets	83.5%	73.5 - 92.7%
All Other Assets	16.5%	7.3 - 26.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.9%	18.0 - 55.8%
Total Long-Term Liabilities	9.3%	0.5 - 9.9%
Total Liabilities	44.2%	20.2 - 65.1%
Total Net Worth	55.8%	34.9 - 79.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.84%	3.03 - 13.56%
Total Assets to Net Worth	1.56X	1.38 - 2.75X
Net Profit After Tax to Total Assets	4.09%	1.78 - 7.70%
Net Sales to Total Assets	2.68X	2.31 - 2.95X
Net Profit After Tax to Net Sales	1.60%	0.70 - 2.80%
Net Profit Before Tax to Net Worth	12.42%	6.10 - 25.16%
Net Profit Before Tax to Total Assets	6.15%	3.64 - 11.89%
EBIT to Total Assets	10.07%	4.78 - 16.03%
SALES ANALYSIS		
Net Sales ($000)	$11,736	$9,220 - 31,196
Percent Sales Change from Prior Year	20.52%	8.74 - 26.62%
Sales Mix:		
Direct Sales	16.7%	8.4 - 24.2%
Warehouse Sales - Counter and Delivery	83.3%	75.8 - 91.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	38.8%	33.0 - 49.0%
Heating & Cooling Supplies & Equipment	16.3%	3.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	31.4%	17.3 - 46.0%
Other Industrial Supplies & Equipment	7.0%	0.0 - 15.0%
Other Products	6.6%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.4%	20.0 - 24.7%
Gross Margin on Direct Shipments	10.5%	9.3 - 13.3%
Gross Margin on Warehouse Sales	24.4%	20.7 - 26.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.17X	2.60 - 3.39X
Total Debt to Net Worth	56.5%	37.9 - 174.5%
Current Debt to Net Worth	49.2%	32.9 - 154.7%
Current Assets to Current Debt	2.74X	1.59 - 3.51X
Current Assets Minus Inventory/Curr Debt	1.33X	0.66 - 1.62X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.5 - 7.0
Average Invoice Size	$225	$152 - 287
Average Billing Line	$40.88	$27.44 - 59.36

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$221,282	$188,648 - 244,675
Gross Margin Per Employee	$46,472	$37,845 - 56,103
Average Compensation Per Employee	$23,936	$19,170 - 26,337
Average Fringe Benefits Per Employee	$4,021	$3,322 - 4,872
Compensation & Fringes Per Employee	$26,630	$23,233 - 32,382
Payroll to Net Sales	10.7%	9.5 - 11.6%
Fringe Benefits to Net Sales	2.0%	1.4 - 2.4%
Payroll & Fringes to Net Sales	13.0%	11.1 - 13.7%
Payroll to Gross Margin	47.9%	42.6 - 53.9%
Fringe Benefits to Gross Margin	9.0%	7.2 - 10.7%
Payroll & Fringes to Gross Margin	56.2%	52.4 - 61.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.43X	3.01 - 5.06X
No. of Days Average Inventory Carried	106 Days	72 - 121 Days
Total Cost of Goods Sold to Ave Inventory	4.63X	3.58 - 6.13X
Whse Gross Margin Return on Ave Inventory	110%	97 - 148%
Turn & Earn Profitability Index	83%	72 - 117%
Percent of Firms on LIFO	63.64%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	45 - 58 Days
Gross Margin Return on Receivables	167%	145 - 190%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.0%	57.1 - 73.4%
31-60 Days Outstanding	19.6%	15.2 - 24.0%
61-90 Days Outstanding	8.3%	5.4 - 10.3%
Over 90 Days Outstanding	8.1%	3.8 - 12.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,766	$1,033 - 2,555
31-60 Days Outstanding	$2,010	$1,529 - 2,817
61-90 Days Outstanding	$1,878	$1,201 - 2,390
Over 90 Days Outstanding	$3,084	$839 - 4,817
Total	$1,581	$1,231 - 2,445
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.5%	62.5 - 76.8%
31-60 Days Outstanding	14.9%	8.4 - 19.9%
61-90 Days Outstanding	8.8%	5.6 - 11.0%
Over 90 Days Outstanding	7.7%	3.9 - 10.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.4%	75.3 - 80.0%
Gross Margin	22.4%	20.0 - 24.7%
Operating Expenses:		
Selling Expenses	5.8%	5.1 - 6.4%
Delivery Expenses	1.5%	1.2 - 2.0%
Warehouse Expenses	2.5%	2.1 - 3.4%
General & Administrative Expenses	6.9%	5.9 - 8.5%
Occupancy Expenses	1.5%	1.0 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.1%
Total Operating Expenses	19.3%	17.1 - 21.4%
Net Operating Profit	3.2%	0.9 - 4.5%
Non-Operating Income	1.9%	1.0 - 2.4%
Non-Operating Expenses	1.4%	1.1 - 2.9%
Net Profit Before Tax	2.2%	1.5 - 5.3%
Net Profit After Tax	1.6%	0.7 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.3%	17.1 - 21.4%
Total Operating Expense to Gross Margin	85.0%	81.6 - 95.9%
Non-People Expense to Net Sales	6.7%	6.0 - 7.5%
Non-People Expense to Gross Margin	30.5%	25.6 - 35.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 2.0%
Times Interest Earned	5.5X	1.8 - 13.3X
BALANCE SHEET		
Cash	4.3%	0.5 - 6.3%
Accounts & Notes Receivable, Trade(Net)	34.1%	26.8 - 37.3%
Inventory	45.1%	39.7 - 54.6%
Other Current Assets	1.0%	0.3 - 1.8%
Total Current Assets	84.4%	79.3 - 91.3%
All Other Assets	15.6%	8.7 - 20.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.8%	23.7 - 56.7%
Total Long-Term Liabilities	5.7%	0.1 - 12.3%
Total Liabilities	43.5%	27.5 - 63.6%
Total Net Worth	56.5%	36.4 - 72.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.62%	7.89 - 15.39%
Total Assets to Net Worth	1.49X	1.25 - 1.96X
Net Profit After Tax to Total Assets	6.37%	5.25 - 8.55%
Net Sales to Total Assets	2.48X	2.23 - 3.42X
Net Profit After Tax to Net Sales	2.40%	1.80 - 3.20%
Net Profit Before Tax to Net Worth	16.51%	12.75 - 28.46%
Net Profit Before Tax to Total Assets	10.53%	8.08 - 15.84%
EBIT to Total Assets	13.60%	11.88 - 18.08%
SALES ANALYSIS		
Net Sales($000)	$8,137	$5,808 - 13,699
Percent Sales Change from Prior Year	17.87%	11.07 - 29.67%
Sales Mix:		
Direct Sales	13.5%	4.8 - 23.3%
Warehouse Sales - Counter and Delivery	86.5%	76.7 - 95.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	42.5%	40.0 - 49.5%
Heating & Cooling Supplies & Equipment	17.0%	2.5 - 27.5%
Industrial P-V-F (Pipes-Valves-Fittings)	29.2%	17.5 - 41.0%
Other Industrial Supplies & Equipment	6.0%	0.0 - 10.0%
Other Products	5.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.4%	20.4 - 25.6%
Gross Margin on Direct Shipments	10.0%	7.9 - 12.9%
Gross Margin on Warehouse Sales	25.9%	23.8 - 28.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.31X	2.49 - 3.81X
Total Debt to Net Worth	49.2%	25.8 - 96.1%
Current Debt to Net Worth	49.2%	25.6 - 74.6%
Current Assets to Current Debt	2.79X	1.98 - 3.97X
Current Assets Minus Inventory/Curr Debt	1.45X	1.03 - 1.84X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.9	5.0 - 8.8
Average Invoice Size	$171	$133 - 255
Average Billing Line	$30.03	$15.05 - 51.05

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$221,282	$188,648 - 242,817
Gross Margin Per Employee	$52,584	$44,213 - 58,943
Average Compensation Per Employee	$21,703	$20,049 - 27,172
Average Fringe Benefits Per Employee	$4,433	$3,371 - 7,195
Compensation & Fringes Per Employee	$25,548	$23,302 - 32,654
Payroll to Net Sales	10.8%	9.6 - 12.5%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.8%
Payroll & Fringes to Net Sales	13.4%	11.0 - 14.7%
Payroll to Gross Margin	45.8%	40.4 - 48.7%
Fringe Benefits to Gross Margin	8.9%	7.5 - 11.0%
Payroll & Fringes to Gross Margin	54.5%	48.3 - 57.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.16X	2.92 - 5.88X
No. of Days Average Inventory Carried	89 Days	62 - 125 Days
Total Cost of Goods Sold to Ave Inventory	5.95X	3.88 - 7.08X
Whse Gross Margin Return on Ave Inventory	139%	103 - 209%
Turn & Earn Profitability Index	104%	76 - 152%
Percent of Firms on LIFO	57.14%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	44 - 59 Days
Gross Margin Return on Receivables	167%	145 - 197%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	69.4%	63.7 - 75.7%
31-60 Days Outstanding	15.8%	10.5 - 19.2%
61-90 Days Outstanding	7.5%	5.1 - 9.7%
Over 90 Days Outstanding	7.3%	2.9 - 13.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,456	$974 - 2,500
31-60 Days Outstanding	$1,519	$1,295 - 2,886
61-90 Days Outstanding	$1,536	$942 - 2,102
Over 90 Days Outstanding	$2,472	$754 - 4,361
Total	$1,347	$1,089 - 2,423
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.7%	63.6 - 77.1%
31-60 Days Outstanding	15.3%	9.8 - 21.0%
61-90 Days Outstanding	8.4%	5.7 - 9.9%
Over 90 Days Outstanding	7.5%	3.6 - 9.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.0%	74.4 - 79.6%
Gross Margin	23.4%	20.4 - 25.6%
Operating Expenses:		
Selling Expenses	5.5%	4.7 - 5.9%
Delivery Expenses	1.8%	1.3 - 2.4%
Warehouse Expenses	2.5%	1.7 - 3.2%
General & Administrative Expenses	7.7%	5.8 - 8.9%
Occupancy Expenses	1.6%	1.2 - 2.4%
Other Operating Expenses	0.0%	0.0 - 0.1%
Total Operating Expenses	19.1%	17.0 - 22.4%
Net Operating Profit	4.3%	3.0 - 5.4%
Non-Operating Income	1.4%	0.6 - 2.5%
Non-Operating Expenses	1.2%	0.6 - 1.7%
Net Profit Before Tax	4.7%	2.6 - 5.7%
Net Profit After Tax	2.4%	1.8 - 3.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.1%	17.0 - 22.4%
Total Operating Expense to Gross Margin	82.7%	77.1 - 87.4%
Non-People Expense to Net Sales	6.6%	6.0 - 7.5%
Non-People Expense to Gross Margin	29.3%	24.9 - 35.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.5%	0.1 - 1.1%
Times Interest Earned	10.3X	4.0 - 31.4X
BALANCE SHEET		
Cash	7.5%	0.5 - 13.9%
Accounts & Notes Receivable, Trade(Net)	35.6%	26.6 - 42.5%
Inventory	42.1%	33.4 - 50.4%
Other Current Assets	0.8%	0.2 - 1.3%
Total Current Assets	86.0%	79.8 - 93.0%
All Other Assets	14.0%	7.0 - 20.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.9%	21.1 - 40.1%
Total Long-Term Liabilities	3.8%	0.1 - 6.4%
Total Liabilities	38.7%	21.7 - 50.4%
Total Net Worth	61.3%	49.6 - 78.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & Other Emphasis Firms

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.86%	2.77 - 12.15%
Total Assets to Net Worth	1.86X	1.39 - 2.88X
Net Profit After Tax to Total Assets	3.26%	1.75 - 6.77%
Net Sales to Total Assets	2.49X	2.06 - 2.94X
Net Profit After Tax to Net Sales	1.40%	0.70 - 2.60%
Net Profit Before Tax to Net Worth	9.48%	4.49 - 19.19%
Net Profit Before Tax to Total Assets	4.97%	1.85 - 10.05%
EBIT to Total Assets	7.59%	4.95 - 12.50%
SALES ANALYSIS		
Net Sales ($000)	$5,273	$3,394 - 11,297
Percent Sales Change from Prior Year	14.57%	6.54 - 21.51%
Sales Mix:		
Direct Sales	8.7%	3.3 - 12.0%
Warehouse Sales - Counter and Delivery	91.3%	88.0 - 96.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	32.4%	26.0 - 44.9%
Heating & Cooling Supplies & Equipment	26.0%	10.0 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	7.3%	0.0 - 10.0%
Other Industrial Supplies & Equipment	8.8%	0.0 - 10.0%
Other Products	25.5%	5.0 - 42.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	21.8 - 26.7%
Gross Margin on Direct Shipments	13.5%	9.9 - 18.0%
Gross Margin on Warehouse Sales	24.7%	22.7 - 28.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.91X	2.38 - 3.44X
Total Debt to Net Worth	83.8%	40.5 - 181.9%
Current Debt to Net Worth	59.9%	32.5 - 134.1%
Current Assets to Current Debt	2.71X	1.83 - 3.78X
Current Assets Minus Inventory/Curr Debt	0.99X	0.74 - 1.53X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.8 - 8.0
Average Invoice Size	$137	$95 - 189
Average Billing Line	$27.19	$16.94 - 37.69

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$164,970	$135,945 - 199,966
Gross Margin Per Employee	$39,641	$34,716 - 45,174
Average Compensation Per Employee	$19,811	$17,019 - 22,626
Average Fringe Benefits Per Employee	$3,464	$2,692 - 4,747
Compensation & Fringes Per Employee	$23,502	$19,677 - 27,050
Payroll to Net Sales	12.0%	10.1 - 14.1%
Fringe Benefits to Net Sales	2.1%	1.7 - 3.1%
Payroll & Fringes to Net Sales	13.9%	11.4 - 16.3%
Payroll to Gross Margin	49.9%	45.3 - 54.0%
Fringe Benefits to Gross Margin	9.0%	7.2 - 11.9%
Payroll & Fringes to Gross Margin	59.3%	51.8 - 64.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.28X	2.62 - 4.41X
No. of Days Average Inventory Carried	111 Days	83 - 140 Days
Total Cost of Goods Sold to Ave Inventory	3.90X	2.86 - 4.84X
Whse Gross Margin Return on Ave Inventory	118%	94 - 143%
Turn & Earn Profitability Index	87%	67 - 104%
Percent of Firms on LIFO	60.94%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	40 - 51 Days
Gross Margin Return on Receivables	195%	166 - 216%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.5%	60.0 - 77.3%
31-60 Days Outstanding	15.7%	11.3 - 19.8%
61-90 Days Outstanding	6.5%	4.1 - 9.0%
Over 90 Days Outstanding	9.3%	3.7 - 13.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$906	$662 - 1,376
31-60 Days Outstanding	$916	$696 - 1,565
61-90 Days Outstanding	$921	$555 - 1,487
Over 90 Days Outstanding	$1,110	$653 - 1,981
Total	$1,034	$675 - 1,300
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.5%	63.6 - 79.4%
31-60 Days Outstanding	14.8%	9.2 - 20.0%
61-90 Days Outstanding	6.2%	3.4 - 8.5%
Over 90 Days Outstanding	7.5%	4.2 - 10.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	73.3 - 78.2%
Gross Margin	24.9%	21.8 - 26.7%
Operating Expenses:		
Selling Expenses	6.5%	5.1 - 7.7%
Delivery Expenses	1.6%	1.1 - 2.0%
Warehouse Expenses	2.7%	1.9 - 3.8%
General & Administrative Expenses	8.7%	6.7 - 10.6%
Occupancy Expenses	1.6%	0.9 - 2.4%
Other Operating Expenses	0.7%	0.0 - 0.8%
Total Operating Expenses	22.3%	19.1 - 26.0%
Net Operating Profit	2.4%	0.7 - 3.7%
Non-Operating Income	1.9%	1.2 - 2.7%
Non-Operating Expenses	1.8%	1.2 - 2.7%
Net Profit Before Tax	1.9%	0.6 - 3.6%
Net Profit After Tax	1.4%	0.7 - 2.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	19.1 - 26.0%
Total Operating Expense to Gross Margin	92.0%	84.3 - 97.5%
Non-People Expense to Net Sales	7.7%	6.3 - 9.2%
Non-People Expense to Gross Margin	33.1%	26.5 - 38.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.5 - 1.7%
Times Interest Earned	2.7X	1.6 - 5.7X
BALANCE SHEET		
Cash	4.6%	0.4 - 4.8%
Accounts & Notes Receivable, Trade(Net)	28.4%	22.7 - 34.7%
Inventory	52.5%	46.3 - 59.8%
Other Current Assets	1.7%	0.3 - 2.5%
Total Current Assets	87.2%	82.3 - 92.9%
All Other Assets	12.8%	7.1 - 17.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.8%	22.6 - 45.6%
Total Long-Term Liabilities	13.0%	2.3 - 22.1%
Total Liabilities	47.8%	28.5 - 65.7%
Total Net Worth	52.2%	34.3 - 71.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.41%	1.28 - 13.59%
Total Assets to Net Worth	1.76X	1.36 - 3.29X
Net Profit After Tax to Total Assets	4.28%	0.66 - 10.74%
Net Sales to Total Assets	2.48X	2.08 - 2.94X
Net Profit After Tax to Net Sales	2.00%	0.30 - 2.80%
Net Profit Before Tax to Net Worth	8.65%	2.31 - 19.72%
Net Profit Before Tax to Total Assets	5.90%	0.76 - 11.31%
EBIT to Total Assets	6.98%	3.84 - 12.49%
SALES ANALYSIS		
Net Sales($000)	$2,396	$1,544 - 2,719
Percent Sales Change from Prior Year	10.98%	5.05 - 16.52%
Sales Mix:		
Direct Sales	4.9%	0.0 - 12.1%
Warehouse Sales - Counter and Delivery	95.1%	87.9 - 100.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	29.3%	17.0 - 42.5%
Heating & Cooling Supplies & Equipment	39.6%	22.5 - 52.5%
Industrial P-V-F (Pipes-Valves-Fittings)	12.0%	2.5 - 15.0%
Other Industrial Supplies & Equipment	3.3%	0.0 - 5.0%
Other Products	15.8%	0.0 - 37.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.2%	22.2 - 28.8%
Gross Margin on Direct Shipments	17.0%	Insufficient Data
Gross Margin on Warehouse Sales	25.8%	23.9 - 34.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.91X	2.36 - 3.16X
Total Debt to Net Worth	70.9%	33.5 - 200.9%
Current Debt to Net Worth	49.8%	25.3 - 139.9%
Current Assets to Current Debt	2.55X	1.82 - 4.41X
Current Assets Minus Inventory/Curr Debt	1.00X	0.63 - 1.92X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	4.8 - 8.5
Average Invoice Size	$103	$83 - 136
Average Billing Line	$14.79	$10.07 - 32.59

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$137,820	$123,193 - 174,947
Gross Margin Per Employee	$36,482	$28,295 - 43,768
Average Compensation Per Employee	$18,005	$16,647 - 21,577
Average Fringe Benefits Per Employee	$3,229	$2,915 - 4,640
Compensation & Fringes Per Employee	$22,381	$19,191 - 25,845
Payroll to Net Sales	12.2%	10.3 - 15.3%
Fringe Benefits to Net Sales	2.3%	1.7 - 4.0%
Payroll & Fringes to Net Sales	14.2%	12.0 - 19.7%
Payroll to Gross Margin	49.1%	45.7 - 59.5%
Fringe Benefits to Gross Margin	10.0%	7.3 - 12.4%
Payroll & Fringes to Gross Margin	61.1%	50.7 - 68.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.69X	1.96 - 3.64X
No. of Days Average Inventory Carried	136 Days	100 - 186 Days
Total Cost of Goods Sold to Ave Inventory	3.46X	2.58 - 3.93X
Whse Gross Margin Return on Ave Inventory	115%	91 - 141%
Turn & Earn Profitability Index	77%	68 - 99%
Percent of Firms on LIFO	53.85%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	42 - 52 Days
Gross Margin Return on Receivables	199%	181 - 224%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.2%	55.5 - 78.4%
31-60 Days Outstanding	13.7%	6.3 - 22.5%
61-90 Days Outstanding	5.0%	1.7 - 8.8%
Over 90 Days Outstanding	13.1%	3.5 - 16.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$708	$449 - 1,434
31-60 Days Outstanding	$684	$299 - 876
61-90 Days Outstanding	$473	$174 - 828
Over 90 Days Outstanding	$938	$499 - 1,729
Total	$689	$562 - 1,092
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.1%	66.6 - 77.8%
31-60 Days Outstanding	14.5%	9.7 - 18.9%
61-90 Days Outstanding	5.1%	2.6 - 7.3%
Over 90 Days Outstanding	10.3%	8.5 - 13.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES UNDER $3,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.1%	71.2 - 77.8%
Gross Margin	26.2%	22.2 - 28.8%
Operating Expenses:		
Selling Expenses	6.9%	5.4 - 7.5%
Delivery Expenses	1.9%	0.9 - 2.1%
Warehouse Expenses	2.3%	1.4 - 3.6%
General & Administrative Expenses	9.8%	6.4 - 13.4%
Occupancy Expenses	1.2%	0.0 - 2.2%
Other Operating Expenses	1.5%	0.0 - 1.7%
Total Operating Expenses	23.8%	21.8 - 31.3%
Net Operating Profit	1.9%	-1.3 - 3.5%
Non-Operating Income	1.7%	1.0 - 2.2%
Non-Operating Expenses	1.8%	0.0 - 2.3%
Net Profit Before Tax	2.0%	0.0 - 2.9%
Net Profit After Tax	2.0%	0.3 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.8%	21.8 - 31.3%
Total Operating Expense to Gross Margin	93.6%	86.2 - 105.2%
Non-People Expense to Net Sales	8.1%	6.5 - 10.3%
Non-People Expense to Gross Margin	34.7%	24.9 - 41.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.7 - 2.5%
Times Interest Earned	3.5X	1.2 - 5.5X
BALANCE SHEET		
Cash	4.0%	0.0 - 6.5%
Accounts & Notes Receivable, Trade(Net)	27.7%	22.4 - 32.6%
Inventory	56.0%	50.7 - 62.1%
Other Current Assets	2.3%	0.7 - 3.3%
Total Current Assets	90.0%	85.0 - 94.4%
All Other Assets	10.0%	5.6 - 15.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.5%	19.7 - 52.8%
Total Long-Term Liabilities	12.0%	4.4 - 18.8%
Total Liabilities	48.5%	26.5 - 69.6%
Total Net Worth	51.5%	30.4 - 73.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.06%	2.66 - 11.74%
Total Assets to Net Worth	1.99X	1.41 - 2.85X
Net Profit After Tax to Total Assets	2.73%	1.14 - 6.28%
Net Sales to Total Assets	2.51X	2.03 - 2.89X
Net Profit After Tax to Net Sales	1.20%	0.60 - 2.30%
Net Profit Before Tax to Net Worth	7.15%	2.81 - 18.72%
Net Profit Before Tax to Total Assets	3.50%	1.25 - 7.57%
EBIT to Total Assets	7.55%	3.29 - 11.85%
SALES ANALYSIS		
Net Sales ($000)	$5,081	$4,139 - 5,992
Percent Sales Change from Prior Year	13.08%	6.52 - 23.22%
Sales Mix:		
Direct Sales	7.0%	2.9 - 10.3%
Warehouse Sales - Counter and Delivery	93.0%	89.8 - 97.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	32.5%	23.0 - 44.5%
Heating & Cooling Supplies & Equipment	22.6%	7.5 - 36.5%
Industrial P-V-F (Pipes-Valves-Fittings)	8.5%	0.0 - 20.0%
Other Industrial Supplies & Equipment	13.2%	0.0 - 20.5%
Other Products	23.2%	5.0 - 40.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.6%	21.8 - 27.5%
Gross Margin on Direct Shipments	12.1%	8.6 - 19.9%
Gross Margin on Warehouse Sales	26.1%	22.1 - 29.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.68X	2.35 - 3.52X
Total Debt to Net Worth	98.5%	43.2 - 185.4%
Current Debt to Net Worth	66.8%	35.1 - 146.8%
Current Assets to Current Debt	2.63X	1.72 - 3.60X
Current Assets Minus Inventory/Curr Debt	0.90X	0.72 - 1.41X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.9 - 8.0
Average Invoice Size	$130	$79 - 242
Average Billing Line	$25.20	$18.24 - 30.44

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$157,360	$133,655 - 188,924
Gross Margin Per Employee	$37,399	$33,696 - 46,545
Average Compensation Per Employee	$19,287	$16,376 - 23,111
Average Fringe Benefits Per Employee	$3,523	$2,576 - 5,204
Compensation & Fringes Per Employee	$23,731	$19,516 - 25,660
Payroll to Net Sales	12.7%	11.5 - 14.5%
Fringe Benefits to Net Sales	2.3%	1.7 - 3.4%
Payroll & Fringes to Net Sales	14.9%	12.3 - 17.2%
Payroll to Gross Margin	51.2%	47.2 - 54.1%
Fringe Benefits to Gross Margin	9.0%	7.2 - 12.7%
Payroll & Fringes to Gross Margin	60.4%	52.7 - 65.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.63X	2.65 - 4.74X
No. of Days Average Inventory Carried	101 Days	77 - 138 Days
Total Cost of Goods Sold to Ave Inventory	4.23X	2.86 - 5.25X
Whse Gross Margin Return on Ave Inventory	123%	102 - 159%
Turn & Earn Profitability Index	90%	75 - 115%
Percent of Firms on LIFO	48.39%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	39 - 52 Days
Gross Margin Return on Receivables	197%	172 - 217%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.8%	58.1 - 79.8%
31-60 Days Outstanding	15.8%	11.1 - 19.9%
61-90 Days Outstanding	6.7%	4.2 - 9.1%
Over 90 Days Outstanding	8.8%	3.1 - 15.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$885	$646 - 1,118
31-60 Days Outstanding	$1,020	$743 - 1,999
61-90 Days Outstanding	$1,243	$658 - 1,798
Over 90 Days Outstanding	$1,288	$682 - 2,779
Total	$1,118	$666 - 1,294
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	77.7%	70.3 - 86.9%
31-60 Days Outstanding	12.3%	6.3 - 16.3%
61-90 Days Outstanding	5.2%	2.0 - 7.2%
Over 90 Days Outstanding	4.9%	2.0 - 7.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES $3,000,000 TO $8,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.6%	72.4 - 78.2%
Gross Margin	25.6%	21.8 - 27.5%
Operating Expenses:		
Selling Expenses	6.6%	4.8 - 7.8%
Delivery Expenses	1.5%	0.5 - 1.9%
Warehouse Expenses	3.3%	1.8 - 4.1%
General & Administrative Expenses	9.6%	8.3 - 11.7%
Occupancy Expenses	1.6%	0.6 - 2.5%
Other Operating Expenses	0.9%	0.0 - 1.4%
Total Operating Expenses	23.5%	19.2 - 26.2%
Net Operating Profit	1.6%	0.4 - 3.5%
Non-Operating Income	2.1%	1.2 - 2.9%
Non-Operating Expenses	1.7%	1.3 - 2.9%
Net Profit Before Tax	1.8%	0.4 - 3.6%
Net Profit After Tax	1.2%	0.6 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.5%	19.2 - 26.2%
Total Operating Expense to Gross Margin	93.5%	86.9 - 98.5%
Non-People Expense to Net Sales	7.8%	7.0 - 8.6%
Non-People Expense to Gross Margin	33.1%	26.4 - 39.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.4 - 1.9%
Times Interest Earned	2.5X	1.4 - 6.6X
BALANCE SHEET		
Cash	5.6%	0.4 - 4.3%
Accounts & Notes Receivable, Trade(Net)	28.0%	23.6 - 33.8%
Inventory	51.4%	43.3 - 59.8%
Other Current Assets	1.6%	0.2 - 2.5%
Total Current Assets	86.7%	81.3 - 92.4%
All Other Assets	13.3%	7.6 - 18.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.4%	24.7 - 49.9%
Total Long-Term Liabilities	13.3%	0.3 - 23.5%
Total Liabilities	48.7%	29.6 - 66.6%
Total Net Worth	51.3%	33.4 - 70.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.68%	5.12 - 12.83%
Total Assets to Net Worth	1.89X	1.40 - 2.73X
Net Profit After Tax to Total Assets	4.23%	2.65 - 6.72%
Net Sales to Total Assets	2.45X	1.97 - 3.09X
Net Profit After Tax to Net Sales	1.60%	1.10 - 3.00%
Net Profit Before Tax to Net Worth	15.17%	7.87 - 21.65%
Net Profit Before Tax to Total Assets	7.84%	4.17 - 11.35%
EBIT to Total Assets	9.60%	6.61 - 14.02%
SALES ANALYSIS		
Net Sales ($000)	$26,426	$11,980 - 36,484
Percent Sales Change from Prior Year	15.30%	12.17 - 23.72%
Sales Mix:		
Direct Sales	12.7%	6.4 - 18.3%
Warehouse Sales - Counter and Delivery	87.3%	81.7 - 93.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	34.8%	26.3 - 45.0%
Heating & Cooling Supplies & Equipment	24.3%	9.5 - 36.5%
Industrial P-V-F (Pipes-Valves-Fittings)	2.6%	0.0 - 5.8%
Other Industrial Supplies & Equipment	4.7%	0.0 - 8.8%
Other Products	33.6%	22.0 - 43.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.1%	21.5 - 25.1%
Gross Margin on Direct Shipments	12.4%	11.0 - 15.6%
Gross Margin on Warehouse Sales	23.7%	22.1 - 25.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.96X	2.42 - 3.36X
Total Debt to Net Worth	89.6%	39.9 - 173.7%
Current Debt to Net Worth	49.6%	32.7 - 110.6%
Current Assets to Current Debt	2.84X	1.93 - 3.71X
Current Assets Minus Inventory/Curr Debt	1.07X	0.79 - 1.43X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.7	3.5 - 6.0
Average Invoice Size	$167	$137 - 189
Average Billing Line	$31.91	$21.02 - 50.87

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$198,475	$169,647 - 221,990
Gross Margin Per Employee	$43,686	$41,648 - 48,536
Average Compensation Per Employee	$21,177	$19,074 - 22,895
Average Fringe Benefits Per Employee	$3,857	$2,912 - 4,803
Compensation & Fringes Per Employee	$23,984	$22,623 - 27,483
Payroll to Net Sales	10.0%	9.4 - 11.9%
Fringe Benefits to Net Sales	1.9%	1.5 - 2.4%
Payroll & Fringes to Net Sales	11.9%	11.1 - 13.9%
Payroll to Gross Margin	46.4%	43.6 - 52.7%
Fringe Benefits to Gross Margin	8.1%	6.9 - 10.3%
Payroll & Fringes to Gross Margin	54.9%	51.4 - 61.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.43X	2.71 - 4.50X
No. of Days Average Inventory Carried	107 Days	81 - 135 Days
Total Cost of Goods Sold to Ave Inventory	4.02X	2.98 - 4.97X
Whse Gross Margin Return on Ave Inventory	113%	83 - 132%
Turn & Earn Profitability Index	78%	64 - 100%
Percent of Firms on LIFO	85.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	46 Days	43 - 51 Days
Gross Margin Return on Receivables	173%	148 - 211%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.4%	64.6 - 74.8%
31-60 Days Outstanding	16.9%	13.3 - 19.8%
61-90 Days Outstanding	7.1%	4.7 - 9.5%
Over 90 Days Outstanding	7.5%	4.6 - 9.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,499	$919 - 1,618
31-60 Days Outstanding	$1,335	$773 - 1,897
61-90 Days Outstanding	$1,055	$779 - 1,527
Over 90 Days Outstanding	$1,240	$504 - 1,547
Total	$1,320	$867 - 2,025
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	57.8%	Insufficient Data
31-60 Days Outstanding	21.4%	Insufficient Data
61-90 Days Outstanding	10.4%	Insufficient Data
Over 90 Days Outstanding	10.4%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HVAC & OTHER FIRMS -- SALES OVER $8,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.9%	74.9 - 78.5%
Gross Margin	23.1%	21.5 - 25.1%
Operating Expenses:		
Selling Expenses	6.5%	5.1 - 7.2%
Delivery Expenses	1.6%	1.1 - 1.8%
Warehouse Expenses	2.8%	2.0 - 3.5%
General & Administrative Expenses	7.4%	5.4 - 8.5%
Occupancy Expenses	1.7%	1.1 - 2.6%
Other Operating Expenses	0.0%	0.0 - 0.6%
Total Operating Expenses	20.0%	17.9 - 22.5%
Net Operating Profit	3.2%	1.3 - 4.0%
Non-Operating Income	2.2%	1.3 - 2.8%
Non-Operating Expenses	2.0%	1.4 - 2.7%
Net Profit Before Tax	3.0%	1.4 - 4.8%
Net Profit After Tax	1.6%	1.1 - 3.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.0%	17.9 - 22.5%
Total Operating Expense to Gross Margin	87.6%	82.9 - 93.5%
Non-People Expense to Net Sales	7.0%	5.8 - 8.9%
Non-People Expense to Gross Margin	30.4%	26.0 - 36.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.6 - 1.4%
Times Interest Earned	3.6X	2.3 - 9.4X
BALANCE SHEET		
Cash	3.4%	0.4 - 4.0%
Accounts & Notes Receivable, Trade(Net)	30.2%	24.4 - 35.5%
Inventory	50.8%	47.2 - 57.1%
Other Current Assets	1.4%	0.3 - 2.2%
Total Current Assets	85.7%	81.7 - 91.6%
All Other Assets	14.2%	8.4 - 18.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	33.8%	22.8 - 44.7%
Total Long-Term Liabilities	12.6%	2.8 - 18.6%
Total Liabilities	46.4%	28.5 - 63.2%
Total Net Worth	53.6%	36.8 - 71.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	12.15%	8.68 - 19.30%
Total Assets to Net Worth	1.99X	1.36 - 2.77X
Net Profit After Tax to Total Assets	6.77%	4.67 - 9.04%
Net Sales to Total Assets	2.64X	2.19 - 3.14X
Net Profit After Tax to Net Sales	2.60%	1.90 - 3.50%
Net Profit Before Tax to Net Worth	19.07%	14.46 - 27.42%
Net Profit Before Tax to Total Assets	10.05%	7.32 - 12.74%
EBIT to Total Assets	12.49%	9.16 - 15.59%
SALES ANALYSIS		
Net Sales ($000)	$6,122	$3,364 - 20,262
Percent Sales Change from Prior Year	19.33%	12.81 - 26.80%
Sales Mix:		
Direct Sales	7.3%	1.5 - 10.9%
Warehouse Sales - Counter and Delivery	92.7%	89.1 - 98.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	35.3%	29.8 - 45.0%
Heating & Cooling Supplies & Equipment	28.6%	10.0 - 43.1%
Industrial P-V-F (Pipes-Valves-Fittings)	4.4%	0.0 - 8.0%
Other Industrial Supplies & Equipment	6.9%	0.0 - 11.3%
Other Products	24.9%	5.0 - 43.3%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.8%	21.8 - 29.3%
Gross Margin on Direct Shipments	12.4%	9.9 - 15.6%
Gross Margin on Warehouse Sales	24.4%	22.1 - 29.3%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.03X	2.66 - 3.49X
Total Debt to Net Worth	98.5%	36.3 - 177.7%
Current Debt to Net Worth	48.5%	31.0 - 151.3%
Current Assets to Current Debt	3.08X	1.77 - 3.76X
Current Assets Minus Inventory/Curr Debt	1.13X	0.77 - 1.71X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	3.5 - 8.5
Average Invoice Size	$145	$105 - 190
Average Billing Line	$28.25	$17.27 - 35.35

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$192,319	$151,063 - 240,278
Gross Margin Per Employee	$44,029	$38,925 - 49,684
Average Compensation Per Employee	$20,679	$17,345 - 22,693
Average Fringe Benefits Per Employee	$3,490	$2,758 - 5,098
Compensation & Fringes Per Employee	$24,381	$19,217 - 27,790
Payroll to Net Sales	10.3%	9.5 - 14.0%
Fringe Benefits to Net Sales	1.8%	1.5 - 3.0%
Payroll & Fringes to Net Sales	11.9%	11.0 - 16.3%
Payroll to Gross Margin	46.4%	43.1 - 51.1%
Fringe Benefits to Gross Margin	8.2%	6.8 - 11.3%
Payroll & Fringes to Gross Margin	53.6%	47.8 - 60.2%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.24X	2.94 - 4.88X
No. of Days Average Inventory Carried	86 Days	75 - 124 Days
Total Cost of Goods Sold to Ave Inventory	4.40X	3.56 - 5.31X
Whse Gross Margin Return on Ave Inventory	130%	115 - 150%
Turn & Earn Profitability Index	99%	80 - 114%
Percent of Firms on LIFO	54.84%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	39 - 53 Days
Gross Margin Return on Receivables	204%	172 - 241%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	70.8%	63.3 - 79.4%
31-60 Days Outstanding	14.5%	10.0 - 19.0%
61-90 Days Outstanding	6.1%	3.0 - 7.4%
Over 90 Days Outstanding	8.6%	2.9 - 11.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$979	$769 - 1,397
31-60 Days Outstanding	$945	$692 - 1,392
61-90 Days Outstanding	$1,011	$555 - 1,384
Over 90 Days Outstanding	$1,336	$616 - 1,911
Total	$908	$732 - 1,345
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.1%	66.4 - 81.5%
31-60 Days Outstanding	14.2%	9.2 - 19.4%
61-90 Days Outstanding	6.0%	3.3 - 7.7%
Over 90 Days Outstanding	7.8%	4.2 - 11.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

HIGH PROFIT HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.9%	70.7 - 78.2%
Gross Margin	25.8%	21.8 - 29.3%
Operating Expenses:		
Selling Expenses	6.1%	4.4 - 7.4%
Delivery Expenses	1.3%	1.0 - 2.1%
Warehouse Expenses	3.0%	1.5 - 3.6%
General & Administrative Expenses	9.4%	6.1 - 10.6%
Occupancy Expenses	1.6%	1.0 - 2.5%
Other Operating Expenses	0.4%	0.0 - 0.8%
Total Operating Expenses	22.1%	18.5 - 25.3%
Net Operating Profit	3.7%	2.7 - 4.4%
Non-Operating Income	2.1%	1.4 - 3.0%
Non-Operating Expenses	1.7%	1.2 - 2.6%
Net Profit Before Tax	3.6%	2.8 - 5.4%
Net Profit After Tax	2.6%	1.9 - 3.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.1%	18.5 - 25.3%
Total Operating Expense to Gross Margin	84.0%	80.9 - 88.9%
Non-People Expense to Net Sales	7.0%	6.0 - 8.6%
Non-People Expense to Gross Margin	29.3%	21.9 - 36.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.4%
Times Interest Earned	5.2X	3.2 - 15.3X
BALANCE SHEET		
Cash	6.3%	1.0 - 7.7%
Accounts & Notes Receivable, Trade(Net)	29.7%	23.1 - 36.2%
Inventory	49.7%	43.5 - 56.5%
Other Current Assets	1.4%	0.2 - 2.1%
Total Current Assets	87.1%	81.4 - 93.6%
All Other Assets	12.9%	6.4 - 18.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.2%	22.3 - 52.5%
Total Long-Term Liabilities	10.8%	2.7 - 15.6%
Total Liabilities	46.1%	26.6 - 64.0%
Total Net Worth	53.9%	36.0 - 73.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

All Reporting Firms

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.15%	3.54 - 13.74%
Total Assets to Net Worth	1.83X	1.46 - 2.87X
Net Profit After Tax to Total Assets	4.11%	1.75 - 7.12%
Net Sales to Total Assets	2.60X	2.14 - 2.97X
Net Profit After Tax to Net Sales	1.60%	0.70 - 2.70%
Net Profit Before Tax to Net Worth	12.13%	5.14 - 21.23%
Net Profit Before Tax to Total Assets	6.01%	2.16 - 10.38%
EBIT to Total Assets	8.61%	5.12 - 12.95%
SALES ANALYSIS		
Net Sales($000)	$5,376	$3,002 - 11,569
Percent Sales Change from Prior Year	15.19%	7.65 - 24.61%
Sales Mix:		
Direct Sales	10.8%	4.1 - 16.3%
Warehouse Sales - Counter and Delivery	89.2%	83.7 - 95.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	52.3%	33.0 - 75.0%
Heating & Cooling Supplies & Equipment	14.6%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	21.3%	0.0 - 27.5%
Other Industrial Supplies & Equipment	3.9%	0.0 - 5.0%
Other Products	7.9%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.5%	21.7 - 27.0%
Gross Margin on Direct Shipments	11.3%	9.0 - 15.3%
Gross Margin on Warehouse Sales	25.2%	22.9 - 28.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.97X	2.45 - 3.39X
Total Debt to Net Worth	82.7%	45.9 - 185.6%
Current Debt to Net Worth	63.7%	35.9 - 138.6%
Current Assets to Current Debt	2.54X	1.74 - 3.58X
Current Assets Minus Inventory/Curr Debt	1.06X	0.73 - 1.55X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.5 - 8.0
Average Invoice Size	$156	$111 - 240
Average Billing Line	$28.00	$16.85 - 43.28

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$186,131	$156,410 - 233,778
Gross Margin Per Employee	$45,032	$37,912 - 52,964
Average Compensation Per Employee	$21,554	$18,522 - 24,769
Average Fringe Benefits Per Employee	$4,038	$2,860 - 5,333
Compensation & Fringes Per Employee	$25,341	$21,701 - 29,880
Payroll to Net Sales	11.6%	10.1 - 13.3%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.9%
Payroll & Fringes to Net Sales	13.7%	11.5 - 15.7%
Payroll to Gross Margin	48.2%	43.5 - 52.7%
Fringe Benefits to Gross Margin	9.0%	7.1 - 11.3%
Payroll & Fringes to Gross Margin	57.5%	50.7 - 62.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.56X	2.79 - 4.74X
No. of Days Average Inventory Carried	103 Days	77 - 131 Days
Total Cost of Goods Sold to Ave Inventory	4.10X	3.20 - 5.40X
Whse Gross Margin Return on Ave Inventory	123%	99 - 158%
Turn & Earn Profitability Index	91%	72 - 117%
Percent of Firms on LIFO	55.26%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	41 - 56 Days
Gross Margin Return on Receivables	183%	157 - 220%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.5%	58.3 - 75.2%
31-60 Days Outstanding	17.0%	12.6 - 20.8%
61-90 Days Outstanding	7.2%	3.8 - 9.5%
Over 90 Days Outstanding	9.3%	4.1 - 13.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,127	$755 - 1,828
31-60 Days Outstanding	$1,248	$736 - 2,155
61-90 Days Outstanding	$1,102	$565 - 2,050
Over 90 Days Outstanding	$1,443	$726 - 2,830
Total	$1,182	$825 - 1,853
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.8%	62.9 - 79.4%
31-60 Days Outstanding	16.6%	11.1 - 20.7%
61-90 Days Outstanding	7.1%	4.0 - 9.3%
Over 90 Days Outstanding	6.6%	3.1 - 8.8%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

ALL FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.6%	73.0 - 78.3%
Gross Margin	24.5%	21.7 - 27.0%
Operating Expenses:		
Selling Expenses	6.1%	4.6 - 7.3%
Delivery Expenses	1.7%	1.2 - 2.4%
Warehouse Expenses	2.6%	1.9 - 3.5%
General & Administrative Expenses	8.3%	6.6 - 10.3%
Occupancy Expenses	1.6%	1.0 - 2.5%
Other Operating Expenses	0.0%	0.0 - 0.3%
Total Operating Expenses	21.5%	19.1 - 24.5%
Net Operating Profit	2.4%	1.0 - 4.1%
Non-Operating Income	1.8%	1.0 - 2.5%
Non-Operating Expenses	1.8%	1.1 - 2.8%
Net Profit Before Tax	2.2%	0.9 - 3.8%
Net Profit After Tax	1.6%	0.7 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.5%	19.1 - 24.5%
Total Operating Expense to Gross Margin	89.8%	83.3 - 95.9%
Non-People Expense to Net Sales	7.5%	6.4 - 8.9%
Non-People Expense to Gross Margin	31.5%	27.0 - 36.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.4 - 1.7%
Times Interest Earned	3.1X	1.6 - 8.1X
BALANCE SHEET		
Cash	5.5%	0.6 - 7.8%
Accounts & Notes Receivable, Trade(Net)	31.0%	24.3 - 37.1%
Inventory	48.7%	41.3 - 56.4%
Other Current Assets	1.9%	0.3 - 2.1%
Total Current Assets	87.1%	82.0 - 93.6%
All Other Assets	12.9%	6.4 - 18.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.6%	23.4 - 50.1%
Total Long-Term Liabilities	10.3%	0.4 - 15.1%
Total Liabilities	47.9%	31.5 - 65.1%
Total Net Worth	52.1%	34.9 - 68.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

All Firms by Geographic Region

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.32%	5.84 - 14.93%
Total Assets to Net Worth	1.48X	1.30 - 2.52X
Net Profit After Tax to Total Assets	5.49%	3.69 - 11.06%
Net Sales to Total Assets	2.43X	2.00 - 2.80X
Net Profit After Tax to Net Sales	2.70%	1.30 - 4.70%
Net Profit Before Tax to Net Worth	14.93%	7.30 - 20.72%
Net Profit Before Tax to Total Assets	9.00%	4.81 - 14.31%
EBIT to Total Assets	10.50%	7.87 - 15.59%
SALES ANALYSIS		
Net Sales ($000)	$5,299	$3,399 - 8,194
Percent Sales Change from Prior Year	20.87%	12.62 - 30.60%
Sales Mix:		
Direct Sales	5.8%	1.4 - 7.2%
Warehouse Sales - Counter and Delivery	94.2%	92.8 - 98.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	52.9%	40.0 - 65.0%
Heating & Cooling Supplies & Equipment	25.2%	10.0 - 36.0%
Industrial P-V-F (Pipes-Valves-Fittings)	15.7%	0.0 - 20.0%
Other Industrial Supplies & Equipment	3.0%	0.0 - 0.0%
Other Products	3.1%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.3%	23.8 - 27.0%
Gross Margin on Direct Shipments	10.6%	6.0 - 11.5%
Gross Margin on Warehouse Sales	25.8%	23.7 - 26.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.66X	2.19 - 3.02X
Total Debt to Net Worth	48.4%	30.0 - 151.5%
Current Debt to Net Worth	48.4%	30.0 - 111.2%
Current Assets to Current Debt	3.07X	1.78 - 4.33X
Current Assets Minus Inventory/Curr Debt	1.14X	0.73 - 2.19X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.1	5.3 - 8.0
Average Invoice Size	$121	$89 - 169
Average Billing Line	$19.36	$14.71 - 28.09

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$190,918	$161,515 - 240,606
Gross Margin Per Employee	$49,424	$40,417 - 58,634
Average Compensation Per Employee	$21,080	$18,750 - 26,406
Average Fringe Benefits Per Employee	$4,120	$3,348 - 5,973
Compensation & Fringes Per Employee	$25,111	$20,623 - 32,501
Payroll to Net Sales	11.3%	10.4 - 12.4%
Fringe Benefits to Net Sales	2.4%	1.8 - 3.0%
Payroll & Fringes to Net Sales	13.8%	11.3 - 14.8%
Payroll to Gross Margin	45.0%	41.4 - 48.9%
Fringe Benefits to Gross Margin	9.3%	7.2 - 11.6%
Payroll & Fringes to Gross Margin	55.0%	46.3 - 58.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.08X	2.36 - 4.43X
No. of Days Average Inventory Carried	119 Days	82 - 155 Days
Total Cost of Goods Sold to Ave Inventory	3.72X	2.76 - 4.98X
Whse Gross Margin Return on Ave Inventory	106%	87 - 152%
Turn & Earn Profitability Index	80%	64 - 117%
Percent of Firms on LIFO	43.33%	
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	44 - 59 Days
Gross Margin Return on Receivables	162%	145 - 210%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.4%	54.3 - 71.8%
31-60 Days Outstanding	17.5%	12.8 - 23.3%
61-90 Days Outstanding	8.6%	5.1 - 11.1%
Over 90 Days Outstanding	10.5%	5.4 - 15.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,505	$1,210 - 2,072
31-60 Days Outstanding	$1,303	$1,007 - 2,082
61-90 Days Outstanding	$1,249	$710 - 1,996
Over 90 Days Outstanding	$1,556	$929 - 2,425
Total	$1,388	$1,164 - 1,700
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	61.8%	54.2 - 70.3%
31-60 Days Outstanding	17.8%	15.6 - 23.3%
61-90 Days Outstanding	11.3%	7.6 - 11.9%
Over 90 Days Outstanding	9.0%	5.7 - 10.6%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW ENGLAND (CT, ME, MA, NH, RI, VT)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.9%	73.0 - 76.2%
Gross Margin	25.3%	23.8 - 27.0%
Operating Expenses:		
Selling Expenses	4.9%	4.3 - 5.5%
Delivery Expenses	2.5%	1.7 - 3.0%
Warehouse Expenses	2.8%	1.8 - 3.9%
General & Administrative Expenses	8.3%	6.7 - 10.3%
Occupancy Expenses	2.2%	1.4 - 2.9%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	21.5%	19.3 - 23.9%
Net Operating Profit	3.6%	1.8 - 4.5%
Non-Operating Income	1.4%	0.5 - 2.7%
Non-Operating Expenses	1.2%	0.7 - 2.0%
Net Profit Before Tax	3.4%	1.7 - 5.4%
Net Profit After Tax	2.7%	1.3 - 4.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.5%	19.3 - 23.9%
Total Operating Expense to Gross Margin	86.8%	80.6 - 91.7%
Non-People Expense to Net Sales	7.6%	6.3 - 9.4%
Non-People Expense to Gross Margin	29.6%	25.3 - 34.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.3%	0.4 - 1.8%
Times Interest Earned	3.3X	1.7 - 6.8X
BALANCE SHEET		
Cash	6.0%	0.0 - 5.8%
Accounts & Notes Receivable, Trade(Net)	31.7%	23.8 - 38.0%
Inventory	51.3%	43.7 - 58.7%
Other Current Assets	0.8%	0.3 - 1.1%
Total Current Assets	89.8%	86.2 - 95.8%
All Other Assets	10.2%	4.2 - 13.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.1%	21.9 - 48.9%
Total Long-Term Liabilities	6.7%	0.0 - 7.8%
Total Liabilities	40.8%	23.8 - 61.4%
Total Net Worth	59.2%	38.6 - 76.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	11.30%	4.85 - 19.07%
Total Assets to Net Worth	1.81X	1.47 - 3.17X
Net Profit After Tax to Total Assets	6.24%	2.35 - 7.94%
Net Sales to Total Assets	2.57X	2.13 - 3.14X
Net Profit After Tax to Net Sales	2.20%	1.10 - 2.90%
Net Profit Before Tax to Net Worth	18.89%	8.17 - 33.23%
Net Profit Before Tax to Total Assets	9.65%	5.58 - 12.17%
EBIT to Total Assets	11.88%	6.62 - 14.59%
SALES ANALYSIS		
Net Sales ($000)	$5,514	$3,386 - 7,806
Percent Sales Change from Prior Year	13.05%	9.21 - 26.70%
Sales Mix:		
Direct Sales	12.2%	5.9 - 15.9%
Warehouse Sales - Counter and Delivery	87.8%	84.1 - 94.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	49.1%	35.0 - 60.0%
Heating & Cooling Supplies & Equipment	16.5%	5.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	25.7%	5.0 - 36.0%
Other Industrial Supplies & Equipment	3.4%	0.0 - 10.0%
Other Products	5.3%	0.0 - 11.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.1%	22.5 - 24.8%
Gross Margin on Direct Shipments	10.0%	5.0 - 17.0%
Gross Margin on Warehouse Sales	25.6%	24.0 - 29.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.92X	2.55 - 3.36X
Total Debt to Net Worth	81.1%	46.9 - 216.9%
Current Debt to Net Worth	72.3%	46.9 - 175.0%
Current Assets to Current Debt	2.26X	1.66 - 2.80X
Current Assets Minus Inventory/Curr Debt	0.76X	0.55 - 1.38X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.7	4.8 - 8.5
Average Invoice Size	$151	$111 - 241
Average Billing Line	$21.50	$15.77 - 37.09

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$161,383	$137,226 - 184,679
Gross Margin Per Employee	$39,663	$34,923 - 44,489
Average Compensation Per Employee	$18,428	$14,646 - 22,242
Average Fringe Benefits Per Employee	$3,528	$2,118 - 4,431
Compensation & Fringes Per Employee	$23,145	$18,604 - 25,910
Payroll to Net Sales	12.2%	10.6 - 13.8%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.7%
Payroll & Fringes to Net Sales	14.8%	11.8 - 16.1%
Payroll to Gross Margin	49.4%	43.9 - 51.7%
Fringe Benefits to Gross Margin	8.3%	6.5 - 10.9%
Payroll & Fringes to Gross Margin	56.3%	49.8 - 60.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.96X	2.06 - 5.86X
No. of Days Average Inventory Carried	123 Days	65 - 180 Days
Total Cost of Goods Sold to Ave Inventory	3.65X	2.82 - 5.66X
Whse Gross Margin Return on Ave Inventory	102%	73 - 180%
Turn & Earn Profitability Index	75%	53 - 138%
Percent of Firms on LIFO	52.94%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	40 - 58 Days
Gross Margin Return on Receivables	173%	157 - 224%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.3%	61.3 - 72.6%
31-60 Days Outstanding	17.4%	12.0 - 22.4%
61-90 Days Outstanding	7.3%	3.6 - 9.4%
Over 90 Days Outstanding	6.9%	1.8 - 12.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$931	$591 - 1,334
31-60 Days Outstanding	$913	$414 - 1,543
61-90 Days Outstanding	$983	$492 - 1,483
Over 90 Days Outstanding	$731	$492 - 6,938
Total	$1,089	$537 - 1,318
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.1%	62.6 - 74.6%
31-60 Days Outstanding	17.7%	13.5 - 22.1%
61-90 Days Outstanding	7.7%	3.5 - 11.0%
Over 90 Days Outstanding	5.5%	2.0 - 8.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NEW YORK STATE (EXCLUDING NYC)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	75.1 - 77.5%
Gross Margin	24.1%	22.5 - 24.8%
Operating Expenses:		
Selling Expenses	6.3%	5.3 - 7.4%
Delivery Expenses	2.3%	0.7 - 2.5%
Warehouse Expenses	2.0%	1.8 - 5.1%
General & Administrative Expenses	7.9%	5.9 - 10.3%
Occupancy Expenses	1.4%	0.0 - 2.2%
Other Operating Expenses	0.0%	0.0 - 0.1%
Total Operating Expenses	20.1%	18.3 - 23.1%
Net Operating Profit	4.2%	2.5 - 4.9%
Non-Operating Income	1.8%	1.2 - 2.2%
Non-Operating Expenses	1.3%	0.7 - 2.9%
Net Profit Before Tax	3.7%	2.1 - 4.6%
Net Profit After Tax	2.2%	1.1 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.1%	18.3 - 23.1%
Total Operating Expense to Gross Margin	83.7%	79.6 - 89.3%
Non-People Expense to Net Sales	7.1%	5.7 - 8.7%
Non-People Expense to Gross Margin	29.1%	25.2 - 32.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.6%
Times Interest Earned	5.7X	2.6 - 17.9X
BALANCE SHEET		
Cash	4.3%	0.6 - 4.3%
Accounts & Notes Receivable, Trade(Net)	29.6%	21.7 - 35.3%
Inventory	52.1%	47.9 - 59.8%
Other Current Assets	1.5%	0.3 - 2.0%
Total Current Assets	87.5%	81.2 - 94.3%
All Other Assets	12.5%	5.7 - 18.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	42.1%	31.3 - 51.9%
Total Long-Term Liabilities	6.2%	0.0 - 11.2%
Total Liabilities	48.3%	31.9 - 68.2%
Total Net Worth	51.7%	31.8 - 68.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, WA. DC)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.54%	4.84 - 13.40%
Total Assets to Net Worth	2.05X	1.61 - 2.65X
Net Profit After Tax to Total Assets	4.05%	2.38 - 6.71%
Net Sales to Total Assets	2.67X	2.16 - 3.15X
Net Profit After Tax to Net Sales	1.40%	0.90 - 2.50%
Net Profit Before Tax to Net Worth	13.08%	6.51 - 20.70%
Net Profit Before Tax to Total Assets	6.52%	2.96 - 10.26%
EBIT to Total Assets	8.89%	6.06 - 12.32%
SALES ANALYSIS		
Net Sales($000)	$5,700	$2,688 - 7,631
Percent Sales Change from Prior Year	20.28%	8.90 - 27.86%
Sales Mix:		
Direct Sales	7.9%	1.5 - 12.4%
Warehouse Sales - Counter and Delivery	92.1%	87.6 - 98.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	43.8%	27.0 - 60.0%
Heating & Cooling Supplies & Equipment	20.7%	10.0 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	19.9%	3.0 - 34.0%
Other Industrial Supplies & Equipment	4.4%	0.0 - 5.0%
Other Products	11.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.9%	22.5 - 27.2%
Gross Margin on Direct Shipments	12.1%	9.6 - 21.2%
Gross Margin on Warehouse Sales	25.3%	23.4 - 27.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.23X	2.50 - 3.49X
Total Debt to Net Worth	104.8%	63.5 - 165.3%
Current Debt to Net Worth	73.5%	43.5 - 132.0%
Current Assets to Current Debt	2.15X	1.76 - 3.13X
Current Assets Minus Inventory/Curr Debt	1.12X	0.69 - 1.42X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.1 - 9.5
Average Invoice Size	$132	$85 - 299
Average Billing Line	$26.07	$13.18 - 46.46

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, WA. DC)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$174,364	$136,977 - 218,496
Gross Margin Per Employee	$43,151	$37,098 - 50,304
Average Compensation Per Employee	$21,406	$17,182 - 24,975
Average Fringe Benefits Per Employee	$4,177	$3,152 - 5,292
Compensation & Fringes Per Employee	$25,815	$19,441 - 29,298
Payroll to Net Sales	11.6%	10.1 - 13.7%
Fringe Benefits to Net Sales	2.4%	1.8 - 2.8%
Payroll & Fringes to Net Sales	13.7%	11.5 - 16.1%
Payroll to Gross Margin	49.0%	43.8 - 52.1%
Fringe Benefits to Gross Margin	10.0%	7.9 - 11.6%
Payroll & Fringes to Gross Margin	58.4%	52.7 - 62.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.57X	2.77 - 5.56X
No. of Days Average Inventory Carried	80 Days	66 - 132 Days
Total Cost of Goods Sold to Ave Inventory	4.70X	3.11 - 6.15X
Whse Gross Margin Return on Ave Inventory	144%	95 - 214%
Turn & Earn Profitability Index	110%	70 - 153%
Percent of Firms on LIFO	33.33%	
ACCOUNTS RECEIVABLE		
Average Collection Period	51 Days	42 - 57 Days
Gross Margin Return on Receivables	187%	150 - 224%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	69.6%	58.2 - 80.9%
31-60 Days Outstanding	16.5%	7.5 - 24.0%
61-90 Days Outstanding	6.5%	2.3 - 9.6%
Over 90 Days Outstanding	7.5%	3.5 - 11.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$944	$731 - 1,436
31-60 Days Outstanding	$1,149	$694 - 1,949
61-90 Days Outstanding	$1,481	$649 - 2,048
Over 90 Days Outstanding	$1,324	$1,000 - 1,716
Total	$1,105	$773 - 1,377
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.2%	65.2 - 84.3%
31-60 Days Outstanding	16.7%	8.7 - 24.0%
61-90 Days Outstanding	5.3%	2.2 - 7.4%
Over 90 Days Outstanding	5.8%	1.8 - 9.3%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MIDDLE ATLANTIC (DE, EASTERN PA, MD, NJ, WA. DC)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.8%	72.8 - 77.5%
Gross Margin	24.9%	22.5 - 27.2%
Operating Expenses:		
Selling Expenses	6.1%	3.9 - 7.2%
Delivery Expenses	1.8%	1.3 - 2.4%
Warehouse Expenses	3.1%	1.7 - 3.7%
General & Administrative Expenses	8.6%	6.2 - 11.6%
Occupancy Expenses	1.4%	0.9 - 2.7%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	22.2%	19.2 - 25.1%
Net Operating Profit	2.2%	1.0 - 3.6%
Non-Operating Income	1.6%	0.7 - 2.4%
Non-Operating Expenses	1.6%	0.9 - 2.7%
Net Profit Before Tax	2.2%	0.8 - 3.7%
Net Profit After Tax	1.4%	0.9 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.2%	19.2 - 25.1%
Total Operating Expense to Gross Margin	90.0%	83.6 - 96.2%
Non-People Expense to Net Sales	7.8%	6.5 - 8.7%
Non-People Expense to Gross Margin	34.0%	28.6 - 36.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.6 - 1.7%
Times Interest Earned	3.8X	1.8 - 6.2X
BALANCE SHEET		
Cash	6.9%	0.7 - 8.6%
Accounts & Notes Receivable, Trade(Net)	32.1%	24.3 - 42.1%
Inventory	45.6%	35.4 - 55.2%
Other Current Assets	2.3%	0.2 - 3.8%
Total Current Assets	86.9%	81.3 - 93.4%
All Other Assets	13.1%	6.6 - 18.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.2%	25.6 - 51.1%
Total Long-Term Liabilities	11.1%	3.7 - 15.9%
Total Liabilities	51.4%	38.7 - 63.6%
Total Net Worth	48.6%	36.4 - 61.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.39%	2.36 - 12.54%
Total Assets to Net Worth	2.19X	1.59 - 3.15X
Net Profit After Tax to Total Assets	2.93%	1.03 - 6.69%
Net Sales to Total Assets	2.64X	2.07 - 3.04X
Net Profit After Tax to Net Sales	1.40%	0.40 - 2.50%
Net Profit Before Tax to Net Worth	8.17%	4.13 - 19.40%
Net Profit Before Tax to Total Assets	3.76%	1.59 - 8.61%
EBIT to Total Assets	7.89%	5.21 - 11.95%
SALES ANALYSIS		
Net Sales ($000)	$4,701	$2,453 - 10,171
Percent Sales Change from Prior Year	16.17%	8.23 - 27.14%
Sales Mix:		
Direct Sales	9.5%	3.0 - 16.7%
Warehouse Sales - Counter and Delivery	90.5%	83.3 - 97.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	47.6%	26.5 - 75.0%
Heating & Cooling Supplies & Equipment	11.8%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	21.8%	1.0 - 21.1%
Other Industrial Supplies & Equipment	6.5%	0.0 - 8.6%
Other Products	12.3%	0.0 - 21.7%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.7%	23.2 - 28.4%
Gross Margin on Direct Shipments	12.2%	9.3 - 16.7%
Gross Margin on Warehouse Sales	27.2%	23.3 - 29.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.99X	2.41 - 3.54X
Total Debt to Net Worth	116.0%	58.0 - 210.1%
Current Debt to Net Worth	68.9%	45.9 - 145.3%
Current Assets to Current Debt	2.43X	1.80 - 3.49X
Current Assets Minus Inventory/Curr Debt	0.95X	0.64 - 1.36X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.9 - 6.5
Average Invoice Size	$132	$87 - 206
Average Billing Line	$29.74	$16.01 - 45.75

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$162,857	$149,075 - 199,038
Gross Margin Per Employee	$43,659	$37,827 - 48,133
Average Compensation Per Employee	$20,353	$18,430 - 22,648
Average Fringe Benefits Per Employee	$3,930	$3,181 - 5,054
Compensation & Fringes Per Employee	$25,103	$22,106 - 27,059
Payroll to Net Sales	12.0%	11.0 - 13.4%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.7%
Payroll & Fringes to Net Sales	14.2%	12.5 - 16.6%
Payroll to Gross Margin	47.9%	44.1 - 52.1%
Fringe Benefits to Gross Margin	9.1%	7.1 - 11.3%
Payroll & Fringes to Gross Margin	57.4%	51.0 - 62.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.28X	2.82 - 4.53X
No. of Days Average Inventory Carried	111 Days	81 - 130 Days
Total Cost of Goods Sold to Ave Inventory	3.63X	2.82 - 4.93X
Whse Gross Margin Return on Ave Inventory	122%	89 - 151%
Turn & Earn Profitability Index	88%	67 - 112%
Percent of Firms on LIFO	65.91%	
ACCOUNTS RECEIVABLE		
Average Collection Period	43 Days	39 - 49 Days
Gross Margin Return on Receivables	213%	174 - 254%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.2%	58.9 - 74.8%
31-60 Days Outstanding	18.4%	13.3 - 22.6%
61-90 Days Outstanding	7.5%	4.8 - 9.9%
Over 90 Days Outstanding	8.0%	4.1 - 9.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$771	$597 - 1,451
31-60 Days Outstanding	$932	$612 - 1,918
61-90 Days Outstanding	$953	$504 - 1,862
Over 90 Days Outstanding	$904	$551 - 1,309
Total	$920	$655 - 1,161
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.2%	59.2 - 80.9%
31-60 Days Outstanding	17.1%	10.6 - 21.4%
61-90 Days Outstanding	7.0%	3.3 - 9.7%
Over 90 Days Outstanding	6.7%	3.0 - 9.1%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: EAST CENTRAL (IN, OH, WESTERN PA, WV)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.0%	71.6 - 76.8%
Gross Margin	25.7%	23.2 - 28.4%
Operating Expenses:		
Selling Expenses	6.8%	5.9 - 8.7%
Delivery Expenses	1.8%	1.4 - 2.2%
Warehouse Expenses	2.4%	2.0 - 3.5%
General & Administrative Expenses	9.0%	6.9 - 11.1%
Occupancy Expenses	1.9%	1.1 - 2.9%
Other Operating Expenses	0.8%	0.0 - 0.9%
Total Operating Expenses	23.0%	21.2 - 25.5%
Net Operating Profit	2.4%	0.5 - 3.9%
Non-Operating Income	1.8%	1.1 - 2.2%
Non-Operating Expenses	1.9%	1.3 - 2.9%
Net Profit Before Tax	1.4%	0.4 - 3.0%
Net Profit After Tax	1.4%	0.4 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.0%	21.2 - 25.5%
Total Operating Expense to Gross Margin	92.4%	86.0 - 97.8%
Non-People Expense to Net Sales	8.3%	7.3 - 10.1%
Non-People Expense to Gross Margin	32.9%	29.0 - 37.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.6 - 2.2%
Times Interest Earned	2.2X	1.4 - 4.5X
BALANCE SHEET		
Cash	3.8%	0.4 - 7.9%
Accounts & Notes Receivable, Trade(Net)	28.1%	22.4 - 33.2%
Inventory	52.8%	45.4 - 61.7%
Other Current Assets	1.8%	0.5 - 1.5%
Total Current Assets	86.6%	82.9 - 92.5%
All Other Assets	13.4%	7.5 - 16.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.2%	21.8 - 50.0%
Total Long-Term Liabilities	14.7%	0.0 - 16.6%
Total Liabilities	51.9%	36.7 - 67.8%
Total Net Worth	48.1%	32.3 - 63.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.67%	4.11 - 17.19%
Total Assets to Net Worth	1.93X	1.52 - 2.99X
Net Profit After Tax to Total Assets	5.27%	2.32 - 7.00%
Net Sales to Total Assets	2.66X	2.11 - 3.00X
Net Profit After Tax to Net Sales	2.10%	0.90 - 2.60%
Net Profit Before Tax to Net Worth	17.09%	5.20 - 28.57%
Net Profit Before Tax to Total Assets	8.22%	2.78 - 12.70%
EBIT to Total Assets	10.96%	4.86 - 16.27%
SALES ANALYSIS		
Net Sales ($000)	$5,673	$2,936 - 11,349
Percent Sales Change from Prior Year	14.47%	8.77 - 20.77%
Sales Mix:		
Direct Sales	16.2%	7.7 - 19.6%
Warehouse Sales - Counter and Delivery	83.8%	80.4 - 92.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	61.5%	49.3 - 88.8%
Heating & Cooling Supplies & Equipment	8.7%	0.0 - 16.5%
Industrial P-V-F (Pipes-Valves-Fittings)	18.6%	0.3 - 19.0%
Other Industrial Supplies & Equipment	1.4%	0.0 - 0.0%
Other Products	9.8%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	21.7%	20.0 - 22.9%
Gross Margin on Direct Shipments	12.9%	9.1 - 17.6%
Gross Margin on Warehouse Sales	23.0%	22.1 - 25.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.16X	2.36 - 3.56X
Total Debt to Net Worth	92.6%	52.6 - 199.0%
Current Debt to Net Worth	90.7%	42.3 - 141.5%
Current Assets to Current Debt	2.36X	1.68 - 3.37X
Current Assets Minus Inventory/Curr Debt	0.98X	0.76 - 1.41X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	5.0 - 10.0
Average Invoice Size	$160	$108 - 224
Average Billing Line	$24.67	$13.55 - 32.87

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$193,582	$149,519 - 246,878
Gross Margin Per Employee	$42,642	$34,499 - 51,975
Average Compensation Per Employee	$20,063	$17,543 - 24,147
Average Fringe Benefits Per Employee	$3,314	$2,409 - 4,545
Compensation & Fringes Per Employee	$23,972	$20,311 - 28,301
Payroll to Net Sales	10.5%	8.4 - 12.3%
Fringe Benefits to Net Sales	1.7%	1.3 - 2.0%
Payroll & Fringes to Net Sales	11.9%	9.7 - 14.1%
Payroll to Gross Margin	49.9%	42.1 - 55.0%
Fringe Benefits to Gross Margin	7.8%	6.2 - 9.8%
Payroll & Fringes to Gross Margin	55.3%	48.1 - 64.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.75X	2.86 - 4.76X
No. of Days Average Inventory Carried	97 Days	77 - 128 Days
Total Cost of Goods Sold to Ave Inventory	4.85X	3.36 - 5.92X
Whse Gross Margin Return on Ave Inventory	118%	92 - 141%
Turn & Earn Profitability Index	92%	68 - 109%
Percent of Firms on LIFO	55.56%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	44 - 54 Days
Gross Margin Return on Receivables	162%	135 - 178%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	59.1 - 74.8%
31-60 Days Outstanding	14.9%	12.0 - 18.1%
61-90 Days Outstanding	6.5%	3.6 - 7.9%
Over 90 Days Outstanding	11.8%	4.8 - 20.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,187	$772 - 2,379
31-60 Days Outstanding	$1,277	$659 - 2,066
61-90 Days Outstanding	$955	$518 - 2,322
Over 90 Days Outstanding	$1,687	$714 - 3,125
Total	$1,194	$774 - 2,283
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.5%	63.9 - 80.9%
31-60 Days Outstanding	14.9%	10.9 - 19.8%
61-90 Days Outstanding	5.8%	3.6 - 8.2%
Over 90 Days Outstanding	6.8%	3.8 - 8.9%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: SOUTHERN (AL, FL, GA, KY, MS, NC, SC, TN, VA)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	78.9%	77.1 - 80.0%
Gross Margin	21.7%	20.0 - 22.9%
Operating Expenses:		
Selling Expenses	6.1%	4.9 - 7.2%
Delivery Expenses	1.4%	1.0 - 2.0%
Warehouse Expenses	2.3%	1.7 - 2.6%
General & Administrative Expenses	7.1%	6.3 - 9.8%
Occupancy Expenses	1.2%	0.8 - 1.8%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	18.6%	16.8 - 21.3%
Net Operating Profit	2.5%	0.0 - 4.1%
Non-Operating Income	1.7%	1.0 - 2.9%
Non-Operating Expenses	1.8%	1.1 - 2.8%
Net Profit Before Tax	2.1%	0.4 - 4.4%
Net Profit After Tax	2.1%	0.9 - 2.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	18.6%	16.8 - 21.3%
Total Operating Expense to Gross Margin	88.0%	80.9 - 100.0%
Non-People Expense to Net Sales	6.4%	5.9 - 7.8%
Non-People Expense to Gross Margin	29.8%	26.8 - 34.0%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.4%
Times Interest Earned	3.9X	1.9 - 16.5X
BALANCE SHEET		
Cash	5.4%	1.2 - 5.7%
Accounts & Notes Receivable, Trade(Net)	32.1%	24.8 - 40.1%
Inventory	48.1%	42.0 - 55.2%
Other Current Assets	1.8%	0.2 - 1.9%
Total Current Assets	87.4%	82.1 - 93.7%
All Other Assets	12.6%	6.3 - 17.9%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.0%	25.1 - 53.5%
Total Long-Term Liabilities	9.6%	0.8 - 17.3%
Total Liabilities	49.6%	34.2 - 65.5%
Total Net Worth	50.4%	34.5 - 65.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	5.64%	2.28 - 9.05%
Total Assets to Net Worth	1.76X	1.42 - 2.28X
Net Profit After Tax to Total Assets	4.03%	1.40 - 5.26%
Net Sales to Total Assets	2.31X	2.14 - 2.76X
Net Profit After Tax to Net Sales	1.50%	0.70 - 2.30%
Net Profit Before Tax to Net Worth	6.69%	2.68 - 11.22%
Net Profit Before Tax to Total Assets	5.21%	2.27 - 7.79%
EBIT to Total Assets	7.23%	4.04 - 11.22%
SALES ANALYSIS		
Net Sales ($000)	$5,230	$3,029 - 9,824
Percent Sales Change from Prior Year	23.23%	16.55 - 31.29%
Sales Mix:		
Direct Sales	7.8%	1.7 - 14.7%
Warehouse Sales - Counter and Delivery	92.2%	85.3 - 98.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	40.5%	2.5 - 64.0%
Heating & Cooling Supplies & Equipment	12.8%	2.5 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	37.4%	5.0 - 80.0%
Other Industrial Supplies & Equipment	5.1%	0.0 - 5.0%
Other Products	4.2%	0.0 - 7.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.2%	24.4 - 28.2%
Gross Margin on Direct Shipments	16.5%	10.0 - 26.3%
Gross Margin on Warehouse Sales	25.7%	24.2 - 28.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.80X	2.43 - 3.25X
Total Debt to Net Worth	75.9%	42.1 - 128.0%
Current Debt to Net Worth	51.9%	34.1 - 105.4%
Current Assets to Current Debt	2.85X	1.58 - 3.97X
Current Assets Minus Inventory/Curr Debt	1.10X	0.73 - 1.92X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.7 - 7.5
Average Invoice Size	$153	$125 - 260
Average Billing Line	$29.90	$18.51 - 51.16

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$194,100	$161,657 - 253,375
Gross Margin Per Employee	$47,721	$42,880 - 59,284
Average Compensation Per Employee	$23,596	$21,135 - 24,683
Average Fringe Benefits Per Employee	$5,917	$4,008 - 6,795
Compensation & Fringes Per Employee	$28,738	$25,054 - 30,671
Payroll to Net Sales	11.4%	10.7 - 14.1%
Fringe Benefits to Net Sales	2.9%	2.2 - 3.7%
Payroll & Fringes to Net Sales	14.9%	12.9 - 17.1%
Payroll to Gross Margin	45.9%	41.4 - 53.5%
Fringe Benefits to Gross Margin	12.0%	9.5 - 14.3%
Payroll & Fringes to Gross Margin	59.1%	52.4 - 64.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.56X	3.23 - 3.86X
No. of Days Average Inventory Carried	103 Days	95 - 113 Days
Total Cost of Goods Sold to Ave Inventory	3.84X	3.45 - 4.60X
Whse Gross Margin Return on Ave Inventory	123%	108 - 147%
Turn & Earn Profitability Index	91%	80 - 104%
Percent of Firms on LIFO	57.89%	
ACCOUNTS RECEIVABLE		
Average Collection Period	50 Days	47 - 60 Days
Gross Margin Return on Receivables	190%	164 - 239%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.3%	53.5 - 77.0%
31-60 Days Outstanding	14.8%	10.6 - 20.3%
61-90 Days Outstanding	6.9%	1.5 - 9.5%
Over 90 Days Outstanding	13.1%	4.4 - 20.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$880	$691 - 2,121
31-60 Days Outstanding	$1,026	$610 - 2,340
61-90 Days Outstanding	$1,193	$400 - 1,702
Over 90 Days Outstanding	$1,693	$1,060 - 2,763
Total	$971	$572 - 1,667
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	70.9%	64.5 - 79.2%
31-60 Days Outstanding	15.3%	10.8 - 20.2%
61-90 Days Outstanding	6.4%	2.7 - 9.6%
Over 90 Days Outstanding	7.4%	2.5 - 10.5%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MICHIGAN (EXCLUDING UPPER MI)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.2%	71.8 - 75.6%
Gross Margin	26.2%	24.4 - 28.2%
Operating Expenses:		
Selling Expenses	6.2%	5.6 - 8.1%
Delivery Expenses	1.8%	1.2 - 2.8%
Warehouse Expenses	2.4%	1.5 - 4.0%
General & Administrative Expenses	10.0%	7.7 - 11.5%
Occupancy Expenses	2.0%	1.1 - 3.0%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	23.8%	22.0 - 25.4%
Net Operating Profit	1.9%	0.7 - 3.6%
Non-Operating Income	0.9%	0.4 - 1.8%
Non-Operating Expenses	1.1%	0.4 - 2.6%
Net Profit Before Tax	1.8%	0.6 - 2.7%
Net Profit After Tax	1.5%	0.7 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.8%	22.0 - 25.4%
Total Operating Expense to Gross Margin	92.6%	87.2 - 97.4%
Non-People Expense to Net Sales	8.4%	6.2 - 9.3%
Non-People Expense to Gross Margin	30.9%	23.8 - 35.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.8%
Times Interest Earned	2.9X	1.4 - 7.5X
BALANCE SHEET		
Cash	5.6%	0.4 - 11.1%
Accounts & Notes Receivable, Trade(Net)	30.9%	26.0 - 36.7%
Inventory	48.0%	44.1 - 51.7%
Other Current Assets	1.4%	0.5 - 2.4%
Total Current Assets	85.8%	78.6 - 93.7%
All Other Assets	14.2%	6.4 - 21.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.2%	21.9 - 48.1%
Total Long-Term Liabilities	7.6%	0.8 - 10.8%
Total Liabilities	43.8%	29.0 - 56.3%
Total Net Worth	56.2%	43.7 - 71.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	7.68%	Insufficient Data
Total Assets to Net Worth	2.29X	Insufficient Data
Net Profit After Tax to Total Assets	2.79%	Insufficient Data
Net Sales to Total Assets	2.22X	Insufficient Data
Net Profit After Tax to Net Sales	1.00%	Insufficient Data
Net Profit Before Tax to Net Worth	12.86%	Insufficient Data
Net Profit Before Tax to Total Assets	3.91%	Insufficient Data
EBIT to Total Assets	6.54%	Insufficient Data
SALES ANALYSIS		
Net Sales($000)	$5,677	Insufficient Data
Percent Sales Change from Prior Year	23.05%	Insufficient Data
Sales Mix:		
Direct Sales	7.2%	Insufficient Data
Warehouse Sales - Counter and Delivery	92.8%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	26.8%	Insufficient Data
Heating & Cooling Supplies & Equipment	23.7%	Insufficient Data
Industrial P-V-F (Pipes-Valves-Fittings)	49.0%	Insufficient Data
Other Industrial Supplies & Equipment	0.0%	Insufficient Data
Other Products	0.6%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
GROSS MARGIN		
Gross Margin on Net Sales	27.7%	Insufficient Data
Gross Margin on Direct Shipments	9.1%	Insufficient Data
Gross Margin on Warehouse Sales	32.1%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.40X	Insufficient Data
Total Debt to Net Worth	74.7%	Insufficient Data
Current Debt to Net Worth	67.5%	Insufficient Data
Current Assets to Current Debt	1.93X	Insufficient Data
Current Assets Minus Inventory/Curr Debt	0.84X	Insufficient Data
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	Insufficient Data
Average Invoice Size	$311	Insufficient Data
Average Billing Line	$42.48	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$191,591	Insufficient Data
Gross Margin Per Employee	$56,861	Insufficient Data
Average Compensation Per Employee	$28,682	Insufficient Data
Average Fringe Benefits Per Employee	$6,020	Insufficient Data
Compensation & Fringes Per Employee	$30,999	Insufficient Data
Payroll to Net Sales	15.4%	Insufficient Data
Fringe Benefits to Net Sales	4.1%	Insufficient Data
Payroll & Fringes to Net Sales	19.1%	Insufficient Data
Payroll to Gross Margin	52.5%	Insufficient Data
Fringe Benefits to Gross Margin	13.1%	Insufficient Data
Payroll & Fringes to Gross Margin	63.8%	Insufficient Data
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.72X	Insufficient Data
No. of Days Average Inventory Carried	134 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	3.35X	Insufficient Data
Whse Gross Margin Return on Ave Inventory	156%	Insufficient Data
Turn & Earn Profitability Index	104%	Insufficient Data
Percent of Firms on LIFO	80.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	55 Days	Insufficient Data
Gross Margin Return on Receivables	174%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.9%	Insufficient Data
31-60 Days Outstanding	19.3%	Insufficient Data
61-90 Days Outstanding	7.4%	Insufficient Data
Over 90 Days Outstanding	9.4%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)		Insuffi ient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: METRO CHICAGO & NORTHERN IL

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	72.7%	Insufficient Data
Gross Margin	27.7%	Insufficient Data
Operating Expenses:		
Selling Expenses	7.6%	Insufficient Data
Delivery Expenses	2.8%	Insufficient Data
Warehouse Expenses	3.3%	Insufficient Data
General & Administrative Expenses	11.2%	Insufficient Data
Occupancy Expenses	1.7%	Insufficient Data
Other Operating Expenses	0.0%	Insufficient Data
Total Operating Expenses	26.6%	Insufficient Data
Net Operating Profit	1.5%	Insufficient Data
Non-Operating Income	2.3%	Insufficient Data
Non-Operating Expenses	1.2%	Insufficient Data
Net Profit Before Tax	1.5%	Insufficient Data
Net Profit After Tax	1.0%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	26.6%	Insufficient Data
Total Operating Expense to Gross Margin	94.4%	Insufficient Data
Non-People Expense to Net Sales	8.7%	Insufficient Data
Non-People Expense to Gross Margin	31.9%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	Insufficient Data
Times Interest Earned	2.4X	Insufficient Data
BALANCE SHEET		
Cash	6.3%	Insufficient Data
Accounts & Notes Receivable, Trade(Net)	32.2%	Insufficient Data
Inventory	50.0%	Insufficient Data
Other Current Assets	3.2%	Insufficient Data
Total Current Assets	91.8%	Insufficient Data
All Other Assets	8.2%	Insufficient Data
Total Assets	100.0%	Insufficient Data
Total Current Liabilities	51.9%	Insufficient Data
Total Long-Term Liabilities	6.1%	Insufficient Data
Total Liabilities	58.0%	Insufficient Data
Total Net Worth	42.0%	Insufficient Data
Total Liabilities & Net Worth	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.02%	2.12 - 10.85%
Total Assets to Net Worth	1.58X	1.38 - 2.77X
Net Profit After Tax to Total Assets	3.06%	1.14 - 6.58%
Net Sales to Total Assets	2.54X	2.15 - 2.93X
Net Profit After Tax to Net Sales	1.10%	0.40 - 2.70%
Net Profit Before Tax to Net Worth	10.76%	2.85 - 16.27%
Net Profit Before Tax to Total Assets	4.38%	1.64 - 10.32%
EBIT to Total Assets	8.35%	3.52 - 11.22%
SALES ANALYSIS		
Net Sales ($000)	$8,910	$4,203 - 14,639
Percent Sales Change from Prior Year	11.40%	3.25 - 15.45%
Sales Mix:		
Direct Sales	12.9%	6.4 - 16.9%
Warehouse Sales - Counter and Delivery	87.1%	83.1 - 93.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	51.0%	35.0 - 70.0%
Heating & Cooling Supplies & Equipment	18.7%	4.9 - 30.0%
Industrial P-V-F (Pipes-Valves-Fittings)	18.0%	0.0 - 28.0%
Other Industrial Supplies & Equipment	4.2%	0.0 - 5.8%
Other Products	8.1%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	21.8 - 25.9%
Gross Margin on Direct Shipments	12.1%	9.8 - 15.4%
Gross Margin on Warehouse Sales	25.0%	23.0 - 27.0%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.01X	2.48 - 3.35X
Total Debt to Net Worth	57.6%	38.4 - 177.9%
Current Debt to Net Worth	45.6%	29.7 - 104.0%
Current Assets to Current Debt	2.98X	2.25 - 4.01X
Current Assets Minus Inventory/Curr Debt	1.31X	0.81 - 1.61X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.7 - 6.3
Average Invoice Size	$171	$134 - 214
Average Billing Line	$31.27	$22.32 - 51.21

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$189,404	$166,814 - 216,899
Gross Margin Per Employee	$45,124	$38,538 - 51,510
Average Compensation Per Employee	$22,368	$19,769 - 25,949
Average Fringe Benefits Per Employee	$4,038	$3,353 - 4,763
Compensation & Fringes Per Employee	$25,486	$22,946 - 30,110
Payroll to Net Sales	11.6%	10.4 - 13.3%
Fringe Benefits to Net Sales	2.0%	1.8 - 2.7%
Payroll & Fringes to Net Sales	13.9%	12.1 - 15.3%
Payroll to Gross Margin	50.7%	44.9 - 54.7%
Fringe Benefits to Gross Margin	8.8%	7.3 - 10.6%
Payroll & Fringes to Gross Margin	59.4%	53.1 - 63.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.39X	2.66 - 4.57X
No. of Days Average Inventory Carried	108 Days	80 - 137 Days
Total Cost of Goods Sold to Ave Inventory	4.07X	3.08 - 5.19X
Whse Gross Margin Return on Ave Inventory	113%	95 - 143%
Turn & Earn Profitability Index	86%	69 - 104%
Percent of Firms on LIFO	73.08%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	40 - 51 Days
Gross Margin Return on Receivables	192%	164 - 216%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.9%	59.8 - 71.8%
31-60 Days Outstanding	18.0%	14.0 - 20.9%
61-90 Days Outstanding	8.0%	5.3 - 10.2%
Over 90 Days Outstanding	8.2%	4.3 - 10.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,180	$813 - 1,727
31-60 Days Outstanding	$1,622	$879 - 2,813
61-90 Days Outstanding	$1,096	$684 - 2,934
Over 90 Days Outstanding	$1,558	$878 - 3,132
Total	$1,259	$864 - 1,899
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.1%	65.1 - 79.8%
31-60 Days Outstanding	15.4%	10.0 - 20.0%
61-90 Days Outstanding	6.9%	4.2 - 8.4%
Over 90 Days Outstanding	6.6%	3.3 - 9.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: MID AMERICA (IA, KS, MN, MO, NE, ND, SD, UPPER MI, WI

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	74.1 - 78.2%
Gross Margin	23.9%	21.8 - 25.9%
Operating Expenses:		
Selling Expenses	6.4%	4.9 - 7.3%
Delivery Expenses	1.5%	1.0 - 2.0%
Warehouse Expenses	2.8%	2.2 - 3.7%
General & Administrative Expenses	7.9%	6.6 - 9.8%
Occupancy Expenses	1.7%	1.3 - 2.2%
Other Operating Expenses	0.0%	0.0 - 0.2%
Total Operating Expenses	21.1%	19.3 - 23.0%
Net Operating Profit	2.5%	0.8 - 4.1%
Non-Operating Income	2.0%	1.4 - 2.6%
Non-Operating Expenses	2.1%	1.4 - 3.1%
Net Profit Before Tax	1.5%	0.6 - 4.3%
Net Profit After Tax	1.1%	0.4 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.1%	19.3 - 23.0%
Total Operating Expense to Gross Margin	88.9%	82.8 - 96.6%
Non-People Expense to Net Sales	7.3%	6.2 - 8.1%
Non-People Expense to Gross Margin	30.7%	26.2 - 34.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.9%
Times Interest Earned	2.3X	1.3 - 6.7X
BALANCE SHEET		
Cash	6.0%	0.4 - 8.7%
Accounts & Notes Receivable, Trade(Net)	29.2%	22.5 - 35.2%
Inventory	49.0%	41.9 - 56.2%
Other Current Assets	1.5%	0.2 - 1.7%
Total Current Assets	85.7%	78.2 - 92.8%
All Other Assets	14.3%	7.2 - 21.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	32.5%	20.8 - 39.1%
Total Long-Term Liabilities	12.5%	1.7 - 19.1%
Total Liabilities	45.0%	27.7 - 64.0%
Total Net Worth	55.0%	36.0 - 72.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	6.38%	2.96 - 12.78%
Total Assets to Net Worth	2.08X	1.53 - 2.49X
Net Profit After Tax to Total Assets	4.11%	1.03 - 6.96%
Net Sales to Total Assets	2.72X	2.24 - 2.98X
Net Profit After Tax to Net Sales	1.80%	0.30 - 2.30%
Net Profit Before Tax to Net Worth	8.96%	-0.79 - 19.13%
Net Profit Before Tax to Total Assets	6.03%	-0.24 - 8.83%
EBIT to Total Assets	6.82%	0.23 - 12.32%
SALES ANALYSIS		
Net Sales ($000)	$6,873	$2,815 - 14,660
Percent Sales Change from Prior Year	6.58%	-10.35 - 13.17%
Sales Mix:		
Direct Sales	9.2%	3.7 - 12.1%
Warehouse Sales - Counter and Delivery	90.8%	87.9 - 96.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	62.8%	40.0 - 92.0%
Heating & Cooling Supplies & Equipment	7.6%	0.0 - 16.3%
Industrial P-V-F (Pipes-Valves-Fittings)	18.3%	0.0 - 22.8%
Other Industrial Supplies & Equipment	3.7%	0.0 - 5.0%
Other Products	7.6%	0.0 - 12.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.6%	20.6 - 26.4%
Gross Margin on Direct Shipments	9.1%	6.2 - 12.0%
Gross Margin on Warehouse Sales	24.7%	21.4 - 28.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.18X	2.73 - 3.72X
Total Debt to Net Worth	107.6%	53.3 - 148.9%
Current Debt to Net Worth	62.5%	40.8 - 107.0%
Current Assets to Current Debt	2.57X	1.76 - 3.95X
Current Assets Minus Inventory/Curr Debt	1.23X	0.91 - 1.95X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.7	4.6 - 8.9
Average Invoice Size	$155	$126 - 254
Average Billing Line	$30.33	$20.92 - 45.49

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$185,614	$150,841 - 224,782
Gross Margin Per Employee	$42,489	$34,065 - 52,296
Average Compensation Per Employee	$20,642	$19,262 - 23,801
Average Fringe Benefits Per Employee	$2,798	$2,489 - 4,064
Compensation & Fringes Per Employee	$24,211	$22,212 - 26,629
Payroll to Net Sales	11.3%	9.0 - 13.5%
Fringe Benefits to Net Sales	1.5%	1.1 - 2.5%
Payroll & Fringes to Net Sales	13.4%	9.8 - 15.0%
Payroll to Gross Margin	48.6%	44.3 - 54.3%
Fringe Benefits to Gross Margin	7.5%	5.5 - 9.7%
Payroll & Fringes to Gross Margin	54.8%	46.5 - 63.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.05X	3.24 - 5.02X
No. of Days Average Inventory Carried	90 Days	73 - 112 Days
Total Cost of Goods Sold to Ave Inventory	4.37X	3.92 - 5.57X
Whse Gross Margin Return on Ave Inventory	135%	108 - 169%
Turn & Earn Profitability Index	103%	78 - 124%
Percent of Firms on LIFO	58.62%	
ACCOUNTS RECEIVABLE		
Average Collection Period	48 Days	40 - 55 Days
Gross Margin Return on Receivables	192%	177 - 218%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.9%	53.4 - 79.6%
31-60 Days Outstanding	16.5%	10.2 - 21.8%
61-90 Days Outstanding	6.2%	2.3 - 9.5%
Over 90 Days Outstanding	9.4%	2.7 - 14.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,054	$573 - 1,862
31-60 Days Outstanding	$1,136	$321 - 2,050
61-90 Days Outstanding	$640	$308 - 1,929
Over 90 Days Outstanding	$1,032	$467 - 3,520
Total	$1,136	$600 - 1,990
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.9%	62.9 - 73.9%
31-60 Days Outstanding	17.9%	12.9 - 23.2%
61-90 Days Outstanding	7.4%	4.3 - 9.5%
Over 90 Days Outstanding	6.8%	4.3 - 8.2%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: LOUISIANA, TEXAS, NEW MEXICO, OKLAHOMA & ARKANSAS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.8%	73.6 - 79.4%
Gross Margin	23.6%	20.6 - 26.4%
Operating Expenses:		
Selling Expenses	5.6%	4.0 - 6.3%
Delivery Expenses	2.0%	1.3 - 3.0%
Warehouse Expenses	2.6%	1.6 - 3.3%
General & Administrative Expenses	9.2%	7.5 - 12.6%
Occupancy Expenses	1.6%	1.3 - 2.2%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	21.0%	17.6 - 27.8%
Net Operating Profit	2.0%	-0.7 - 3.5%
Non-Operating Income	2.5%	1.8 - 3.1%
Non-Operating Expenses	1.9%	1.3 - 2.7%
Net Profit Before Tax	2.2%	-0.6 - 3.4%
Net Profit After Tax	1.8%	0.3 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.0%	17.6 - 27.8%
Total Operating Expense to Gross Margin	92.6%	83.4 - 102.4%
Non-People Expense to Net Sales	7.4%	6.5 - 11.2%
Non-People Expense to Gross Margin	34.4%	28.3 - 41.5%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.4 - 1.6%
Times Interest Earned	3.6X	0.3 - 11.7X
BALANCE SHEET		
Cash	6.1%	0.7 - 6.9%
Accounts & Notes Receivable, Trade(Net)	32.3%	24.9 - 34.6%
Inventory	43.7%	34.9 - 53.9%
Other Current Assets	2.7%	0.2 - 2.3%
Total Current Assets	84.8%	73.9 - 94.6%
All Other Assets	15.2%	5.3 - 26.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.2%	22.1 - 45.8%
Total Long-Term Liabilities	11.9%	0.7 - 17.1%
Total Liabilities	46.2%	34.1 - 59.8%
Total Net Worth	53.8%	40.2 - 65.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.29%	6.13 - 22.78%
Total Assets to Net Worth	1.68X	1.47 - 3.82X
Net Profit After Tax to Total Assets	6.01%	1.45 - 9.68%
Net Sales to Total Assets	2.53X	2.15 - 3.01X
Net Profit After Tax to Net Sales	2.60%	0.60 - 4.00%
Net Profit Before Tax to Net Worth	12.42%	6.35 - 29.31%
Net Profit Before Tax to Total Assets	7.96%	2.06 - 12.10%
EBIT to Total Assets	8.12%	4.69 - 14.93%
SALES ANALYSIS		
Net Sales ($000)	$11,198	$2,424 - 15,609
Percent Sales Change from Prior Year	13.04%	2.67 - 44.95%
Sales Mix:		
Direct Sales	10.7%	4.4 - 14.4%
Warehouse Sales - Counter and Delivery	89.3%	85.6 - 95.6%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	66.8%	52.5 - 78.0%
Heating & Cooling Supplies & Equipment	10.5%	2.3 - 16.3%
Industrial P-V-F (Pipes-Valves-Fittings)	8.6%	0.0 - 11.3%
Other Industrial Supplies & Equipment	5.8%	0.0 - 11.3%
Other Products	8.3%	0.0 - 21.3%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.2%	19.0 - 25.4%
Gross Margin on Direct Shipments	11.7%	Insufficient Data
Gross Margin on Warehouse Sales	21.5%	19.8 - 26.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.99X	2.69 - 3.60X
Total Debt to Net Worth	68.5%	46.7 - 282.6%
Current Debt to Net Worth	68.3%	41.2 - 256.5%
Current Assets to Current Debt	1.76X	1.43 - 3.25X
Current Assets Minus Inventory/Curr Debt	0.83X	0.62 - 1.55X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	5.0 - 7.3
Average Invoice Size	$168	$96 - 232
Average Billing Line	$28.45	$13.94 - 46.34

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$231,722	$197,658 - 242,216
Gross Margin Per Employee	$48,939	$45,856 - 55,176
Average Compensation Per Employee	$24,227	$19,406 - 25,256
Average Fringe Benefits Per Employee	$4,215	$2,526 - 5,324
Compensation & Fringes Per Employee	$27,883	$23,160 - 30,595
Payroll to Net Sales	10.5%	8.5 - 11.5%
Fringe Benefits to Net Sales	1.7%	1.1 - 2.3%
Payroll & Fringes to Net Sales	12.3%	10.6 - 13.4%
Payroll to Gross Margin	44.7%	41.0 - 49.3%
Fringe Benefits to Gross Margin	7.0%	5.4 - 10.3%
Payroll & Fringes to Gross Margin	53.0%	46.7 - 58.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.20X	3.21 - 6.46X
No. of Days Average Inventory Carried	87 Days	57 - 114 Days
Total Cost of Goods Sold to Ave Inventory	4.22X	3.64 - 8.75X
Whse Gross Margin Return on Ave Inventory	121%	98 - 180%
Turn & Earn Profitability Index	110%	84 - 169%
Percent of Firms on LIFO	20.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	53 Days	48 - 69 Days
Gross Margin Return on Receivables	140%	117 - 207%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	60.7%	56.0 - 71.1%
31-60 Days Outstanding	16.8%	13.9 - 17.7%
61-90 Days Outstanding	7.1%	3.6 - 8.9%
Over 90 Days Outstanding	15.4%	7.0 - 19.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,103	$604 - 2,496
31-60 Days Outstanding	$2,061	$1,505 - 3,659
61-90 Days Outstanding	$1,666	$641 - 2,827
Over 90 Days Outstanding	$3,817	$1,792 - 5,760
Total	$1,348	$837 - 2,344
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	76.2%	68.0 - 81.1%
31-60 Days Outstanding	12.9%	6.0 - 18.6%
61-90 Days Outstanding	6.1%	3.6 - 8.9%
Over 90 Days Outstanding	4.8%	2.3 - 7.0%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: ROCKY MOUNTAIN (CO, ID, MT, UT, WY)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.4%	74.6 - 81.0%
Gross Margin	23.2%	19.0 - 25.4%
Operating Expenses:		
Selling Expenses	5.8%	3.4 - 8.0%
Delivery Expenses	1.4%	0.8 - 2.2%
Warehouse Expenses	1.9%	0.4 - 3.4%
General & Administrative Expenses	7.2%	4.9 - 8.5%
Occupancy Expenses	2.0%	1.0 - 3.5%
Other Operating Expenses	0.0%	0.0 - 0.4%
Total Operating Expenses	19.7%	16.1 - 23.1%
Net Operating Profit	3.5%	1.2 - 5.5%
Non-Operating Income	1.7%	0.4 - 3.0%
Non-Operating Expenses	1.6%	0.9 - 3.5%
Net Profit Before Tax	3.5%	0.8 - 5.3%
Net Profit After Tax	2.6%	0.6 - 4.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.7%	16.1 - 23.1%
Total Operating Expense to Gross Margin	87.4%	79.0 - 94.5%
Non-People Expense to Net Sales	7.3%	5.6 - 9.2%
Non-People Expense to Gross Margin	35.7%	27.5 - 39.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.1 - 1.3%
Times Interest Earned	4.6X	1.9 - 45.7X
BALANCE SHEET		
Cash	4.8%	0.0 - 13.7%
Accounts & Notes Receivable, Trade(Net)	33.5%	23.8 - 42.6%
Inventory	42.5%	27.9 - 55.1%
Other Current Assets	1.4%	0.0 - 1.2%
Total Current Assets	82.2%	71.5 - 93.9%
All Other Assets	17.8%	6.1 - 28.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	43.0%	27.2 - 65.2%
Total Long-Term Liabilities	7.1%	0.1 - 7.6%
Total Liabilities	50.1%	31.8 - 73.4%
Total Net Worth	49.9%	26.6 - 68.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	10.55%	Insufficient Data
Total Assets to Net Worth	2.48X	Insufficient Data
Net Profit After Tax to Total Assets	4.42%	Insufficient Data
Net Sales to Total Assets	2.68X	Insufficient Data
Net Profit After Tax to Net Sales	1.60%	Insufficient Data
Net Profit Before Tax to Net Worth	12.97%	Insufficient Data
Net Profit Before Tax to Total Assets	4.42%	Insufficient Data
EBIT to Total Assets	9.69%	Insufficient Data
SALES ANALYSIS		
Net Sales ($000)	$5,665	Insufficient Data
Percent Sales Change from Prior Year	10.65%	Insufficient Data
Sales Mix:		
Direct Sales	10.6%	Insufficient Data
Warehouse Sales - Counter and Delivery	89.4%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	64.9%	Insufficient Data
Heating & Cooling Supplies & Equipment	6.9%	Insufficient Data
Industrial P-V-F (Pipes-Valves-Fittings)	20.5%	Insufficient Data
Other Industrial Supplies & Equipment	0.0%	Insufficient Data
Other Products	7.7%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
GROSS MARGIN		
Gross Margin on Net Sales	26.9%	Insufficient Data
Gross Margin on Direct Shipments	10.4%	Insufficient Data
Gross Margin on Warehouse Sales	25.9%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.02X	Insufficient Data
Total Debt to Net Worth	148.7%	Insufficient Data
Current Debt to Net Worth	121.3%	Insufficient Data
Current Assets to Current Debt	2.07X	Insufficient Data
Current Assets Minus Inventory/Curr Debt	0.87X	Insufficient Data
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.3	Insufficient Data
Average Invoice Size	$247	Insufficient Data
Average Billing Line	$53.32	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$172,082	Insufficient Data
Gross Margin Per Employee	$44,877	Insufficient Data
Average Compensation Per Employee	$22,425	Insufficient Data
Average Fringe Benefits Per Employee	$3,774	Insufficient Data
Compensation & Fringes Per Employee	$26,463	Insufficient Data
Payroll to Net Sales	10.3%	Insufficient Data
Fringe Benefits to Net Sales	2.1%	Insufficient Data
Payroll & Fringes to Net Sales	12.1%	Insufficient Data
Payroll to Gross Margin	50.0%	Insufficient Data
Fringe Benefits to Gross Margin	9.0%	Insufficient Data
Payroll & Fringes to Gross Margin	55.5%	Insufficient Data
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.60X	Insufficient Data
No. of Days Average Inventory Carried	101 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	4.07X	Insufficient Data
Whse Gross Margin Return on Ave Inventory	135%	Insufficient Data
Turn & Earn Profitability Index	85%	Insufficient Data
Percent of Firms on LIFO	40.00%	
ACCOUNTS RECEIVABLE		
Average Collection Period	45 Days	Insufficient Data
Gross Margin Return on Receivables	180%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	61.8%	Insufficient Data
31-60 Days Outstanding	20.6%	Insufficient Data
61-90 Days Outstanding	7.1%	Insufficient Data
Over 90 Days Outstanding	10.5%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)		Insufficient Data
31-60 Days Outstanding		Insufficient Data
61-90 Days Outstanding		Insufficient Data
Over 90 Days Outstanding		Insufficient Data
Total		Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC NORTHWEST (AK, OR, WA)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	75.5%	Insufficient Data
Gross Margin	26.9%	Insufficient Data
Operating Expenses:		
Selling Expenses	7.0%	Insufficient Data
Delivery Expenses	1.2%	Insufficient Data
Warehouse Expenses	2.7%	Insufficient Data
General & Administrative Expenses	10.2%	Insufficient Data
Occupancy Expenses	2.1%	Insufficient Data
Other Operating Expenses	1.4%	Insufficient Data
Total Operating Expenses	24.6%	Insufficient Data
Net Operating Profit	2.3%	Insufficient Data
Non-Operating Income	2.3%	Insufficient Data
Non-Operating Expenses	1.3%	Insufficient Data
Net Profit Before Tax	1.9%	Insufficient Data
Net Profit After Tax	1.6%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.6%	Insufficient Data
Total Operating Expense to Gross Margin	89.8%	Insufficient Data
Non-People Expense to Net Sales	7.7%	Insufficient Data
Non-People Expense to Gross Margin	29.6%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	0.4%	Insufficient Data
Times Interest Earned	12.4X	Insufficient Data
BALANCE SHEET		
Cash	5.3%	Insufficient Data
Accounts & Notes Receivable, Trade(Net)	29.7%	Insufficient Data
Inventory	53.2%	Insufficient Data
Other Current Assets	1.4%	Insufficient Data
Total Current Assets	89.7%	Insufficient Data
All Other Assets	10.3%	Insufficient Data
Total Assets	100.0%	Insufficient Data
Total Current Liabilities	41.6%	Insufficient Data
Total Long-Term Liabilities	10.7%	Insufficient Data
Total Liabilities	52.3%	Insufficient Data
Total Net Worth	47.7%	Insufficient Data
Total Liabilities & Net Worth	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	8.42%	5.97 - 14.10%
Total Assets to Net Worth	1.70X	1.40 - 2.38X
Net Profit After Tax to Total Assets	4.77%	2.98 - 8.92%
Net Sales to Total Assets	2.55X	2.05 - 3.21X
Net Profit After Tax to Net Sales	1.80%	1.40 - 3.20%
Net Profit Before Tax to Net Worth	15.80%	7.43 - 24.86%
Net Profit Before Tax to Total Assets	7.38%	4.07 - 13.93%
EBIT to Total Assets	10.75%	6.92 - 15.82%
SALES ANALYSIS		
Net Sales ($000)	$4,138	$2,014 - 6,321
Percent Sales Change from Prior Year	22.28%	12.11 - 34.78%
Sales Mix:		
Direct Sales	12.9%	0.0 - 21.1%
Warehouse Sales - Counter and Delivery	87.1%	78.9 - 100.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.6%	21.5 - 80.0%
Heating & Cooling Supplies & Equipment	10.3%	0.3 - 16.5%
Industrial P-V-F (Pipes-Valves-Fittings)	25.8%	0.3 - 56.8%
Other Industrial Supplies & Equipment	3.0%	0.0 - 5.0%
Other Products	7.3%	0.0 - 4.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.8%	24.4 - 28.7%
Gross Margin on Direct Shipments	9.2%	5.0 - 13.3%
Gross Margin on Warehouse Sales	28.6%	24.9 - 30.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.94X	2.28 - 3.60X
Total Debt to Net Worth	70.6%	40.0 - 137.5%
Current Debt to Net Worth	68.1%	36.3 - 129.1%
Current Assets to Current Debt	2.41X	1.86 - 3.88X
Current Assets Minus Inventory/Curr Debt	1.09X	0.87 - 1.78X
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	8.0	5.0 - 10.0
Average Invoice Size	$249	$157 - 276
Average Billing Line	$30.59	$17.77 - 47.57

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$200,949	$154,024 - 272,493
Gross Margin Per Employee	$55,762	$40,064 - 65,236
Average Compensation Per Employee	$24,920	$18,716 - 27,843
Average Fringe Benefits Per Employee	$5,931	$2,804 - 7,814
Compensation & Fringes Per Employee	$31,012	$23,613 - 34,777
Payroll to Net Sales	12.2%	8.6 - 13.3%
Fringe Benefits to Net Sales	2.8%	1.9 - 3.5%
Payroll & Fringes to Net Sales	15.2%	11.2 - 17.0%
Payroll to Gross Margin	46.5%	39.3 - 50.6%
Fringe Benefits to Gross Margin	10.9%	8.6 - 13.3%
Payroll & Fringes to Gross Margin	53.6%	49.4 - 61.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.16X	2.59 - 5.03X
No. of Days Average Inventory Carried	116 Days	73 - 141 Days
Total Cost of Goods Sold to Ave Inventory	4.41X	2.99 - 5.68X
Whse Gross Margin Return on Ave Inventory	125%	100 - 161%
Turn & Earn Profitability Index	92%	72 - 127%
Percent of Firms on LIFO	46.67%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	40 - 57 Days
Gross Margin Return on Receivables	193%	174 - 241%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.6%	62.7 - 79.0%
31-60 Days Outstanding	16.0%	11.7 - 20.4%
61-90 Days Outstanding	6.2%	3.3 - 8.9%
Over 90 Days Outstanding	6.2%	2.0 - 7.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,500	$773 - 2,258
31-60 Days Outstanding	$1,138	$789 - 1,434
61-90 Days Outstanding	$1,244	$490 - 2,124
Over 90 Days Outstanding	$1,454	$615 - 1,985
Total	$1,348	$880 - 2,014
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	69.8%	61.0 - 78.8%
31-60 Days Outstanding	18.9%	13.5 - 23.8%
61-90 Days Outstanding	6.7%	4.5 - 8.5%
Over 90 Days Outstanding	4.6%	2.4 - 5.8%
Total	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: NORTHERN CALIFORNIA, NORTHERN NEVADA & HAWAII

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.8%	71.3 - 75.6%
Gross Margin	26.8%	24.4 - 28.7%
Operating Expenses:		
Selling Expenses	5.0%	3.3 - 8.9%
Delivery Expenses	1.4%	1.3 - 2.3%
Warehouse Expenses	3.0%	2.3 - 4.5%
General & Administrative Expenses	9.4%	6.6 - 11.1%
Occupancy Expenses	1.9%	1.1 - 2.8%
Other Operating Expenses	0.6%	0.0 - 0.6%
Total Operating Expenses	22.9%	21.1 - 24.2%
Net Operating Profit	3.5%	2.4 - 4.8%
Non-Operating Income	1.4%	1.0 - 2.3%
Non-Operating Expenses	1.3%	1.1 - 2.1%
Net Profit Before Tax	3.5%	2.2 - 5.2%
Net Profit After Tax	1.8%	1.4 - 3.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.9%	21.1 - 24.2%
Total Operating Expense to Gross Margin	86.0%	82.6 - 91.0%
Non-People Expense to Net Sales	7.3%	6.2 - 11.2%
Non-People Expense to Gross Margin	29.1%	24.3 - 39.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.3%
Times Interest Earned	4.9X	2.8 - 13.9X
BALANCE SHEET		
Cash	7.2%	2.0 - 10.1%
Accounts & Notes Receivable, Trade(Net)	32.6%	25.8 - 41.8%
Inventory	47.2%	38.8 - 53.3%
Other Current Assets	3.2%	0.3 - 3.6%
Total Current Assets	90.2%	88.4 - 95.2%
All Other Assets	9.8%	4.8 - 11.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	37.1%	24.2 - 48.7%
Total Long-Term Liabilities	5.8%	0.0 - 11.5%
Total Liabilities	42.9%	28.4 - 57.9%
Total Net Worth	57.1%	42.1 - 71.5%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE		
Net Profit After Tax to Net Worth	16.78%	Insufficient Data
Total Assets to Net Worth	3.73X	Insufficient Data
Net Profit After Tax to Total Assets	3.16%	Insufficient Data
Net Sales to Total Assets	2.82X	Insufficient Data
Net Profit After Tax to Net Sales	1.00%	Insufficient Data
Net Profit Before Tax to Net Worth	20.27%	Insufficient Data
Net Profit Before Tax to Total Assets	4.70%	Insufficient Data
EBIT to Total Assets	9.73%	Insufficient Data
SALES ANALYSIS		
Net Sales ($000)	$8,247	Insufficient Data
Percent Sales Change from Prior Year	30.33%	Insufficient Data
Sales Mix:		
Direct Sales	13.9%	Insufficient Data
Warehouse Sales - Counter and Delivery	86.1%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	67.5%	Insufficient Data
Heating & Cooling Supplies & Equipment	3.8%	Insufficient Data
Industrial P-V-F (Pipes-Valves-Fittings)	20.0%	Insufficient Data
Other Industrial Supplies & Equipment	5.2%	Insufficient Data
Other Products	3.5%	Insufficient Data
TOTAL SALES	100.0%	Insufficient Data
GROSS MARGIN		
Gross Margin on Net Sales	19.7%	Insufficient Data
Gross Margin on Direct Shipments	8.1%	Insufficient Data
Gross Margin on Warehouse Sales	20.7%	Insufficient Data
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.03X	Insufficient Data
Total Debt to Net Worth	272.8%	Insufficient Data
Current Debt to Net Worth	248.6%	Insufficient Data
Current Assets to Current Debt	1.42X	Insufficient Data
Current Assets Minus Inventory/Curr Debt	0.77X	Insufficient Data
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	Insufficient Data
Average Invoice Size	$187	Insufficient Data
Average Billing Line	$24.82	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$253,722	Insufficient Data
Gross Margin Per Employee	$52,119	Insufficient Data
Average Compensation Per Employee	$24,318	Insufficient Data
Average Fringe Benefits Per Employee	$5,640	Insufficient Data
Compensation & Fringes Per Employee	$30,561	Insufficient Data
Payroll to Net Sales	10.6%	Insufficient Data
Fringe Benefits to Net Sales	1.9%	Insufficient Data
Payroll & Fringes to Net Sales	13.1%	Insufficient Data
Payroll to Gross Margin	58.4%	Insufficient Data
Fringe Benefits to Gross Margin	9.5%	Insufficient Data
Payroll & Fringes to Gross Margin	63.2%	Insufficient Data
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	5.50X	Insufficient Data
No. of Days Average Inventory Carried	67 Days	Insufficient Data
Total Cost of Goods Sold to Ave Inventory	5.68X	Insufficient Data
Whse Gross Margin Return on Ave Inventory	150%	Insufficient Data
Turn & Earn Profitability Index	119%	Insufficient Data
Percent of Firms on LIFO	66.67%	
ACCOUNTS RECEIVABLE		
Average Collection Period	57 Days	Insufficient Data
Gross Margin Return on Receivables	139%	Insufficient Data
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	70.9%	Insufficient Data
31-60 Days Outstanding	13.6%	Insufficient Data
61-90 Days Outstanding	4.6%	Insufficient Data
Over 90 Days Outstanding	10.8%	Insufficient Data
Total	100.0%	Insufficient Data
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,470	Insufficient Data
31-60 Days Outstanding	$1,798	Insufficient Data
61-90 Days Outstanding	$970	Insufficient Data
Over 90 Days Outstanding	$5,081	Insufficient Data
Total	$2,231	Insufficient Data
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	73.8%	Insufficient Data
31-60 Days Outstanding	15.3%	Insufficient Data
61-90 Days Outstanding	6.1%	Insufficient Data
Over 90 Days Outstanding	4.8%	Insufficient Data
Total	100.0%	Insufficient Data

AMERICAN SUPPLY ASSOCIATION 1985 ANNUAL OPERATING PERFORMANCE SURVEY

REGION: PACIFIC SOUTHWEST (AZ, SOUTHERN CA, SOUTHERN NV)

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	Insufficient Data
Cost of Goods Sold	80.0%	Insufficient Data
Gross Margin	19.7%	Insufficient Data
Operating Expenses:		
Selling Expenses	4.5%	Insufficient Data
Delivery Expenses	2.1%	Insufficient Data
Warehouse Expenses	2.1%	Insufficient Data
General & Administrative Expenses	6.3%	Insufficient Data
Occupancy Expenses	0.7%	Insufficient Data
Other Operating Expenses	0.2%	Insufficient Data
Total Operating Expenses	18.5%	Insufficient Data
Net Operating Profit	1.7%	Insufficient Data
Non-Operating Income	2.1%	Insufficient Data
Non-Operating Expenses	1.9%	Insufficient Data
Net Profit Before Tax	1.5%	Insufficient Data
Net Profit After Tax	1.0%	Insufficient Data
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	18.5%	Insufficient Data
Total Operating Expense to Gross Margin	90.1%	Insufficient Data
Non-People Expense to Net Sales	5.8%	Insufficient Data
Non-People Expense to Gross Margin	29.5%	Insufficient Data
INTEREST EXPENSE		
Interest Expense to Net Sales	1.4%	Insufficient Data
Times Interest Earned	2.0X	Insufficient Data
BALANCE SHEET		
Cash	3.3%	Insufficient Data
Accounts & Notes Receivable, Trade(Net)	38.5%	Insufficient Data
Inventory	48.4%	Insufficient Data
Other Current Assets	3.3%	Insufficient Data
Total Current Assets	93.6%	Insufficient Data
All Other Assets	6.4%	Insufficient Data
Total Assets	100.0%	Insufficient Data
Total Current Liabilities	54.8%	Insufficient Data
Total Long-Term Liabilities	12.1%	Insufficient Data
Total Liabilities	66.9%	Insufficient Data
Total Net Worth	33.1%	Insufficient Data
Total Liabilities & Net Worth	100.0%	Insufficient Data

APPENDIX

Survey Methodology/Demographics

In late March, 1985, the American Supply Association mailed strictly confidential questionnaires to all P-H-C-P wholesaler members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific geographic region, sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code was assigned. The data was then coded, keyed to tape, and edited by Industry Insights financial analysts for validity. Computer processing was then performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 315 completed and usable questionnaires were received by Industry Insights representing approximately 1,000 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
ALL REPORTING FIRMS	315
BY PRODUCT EMPHASIS:	
Plumbing Supplies & Equipment Firms (those that that obtain more than 50% of sales from plumbing products)	161
Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from Industrial P-V-F)	43
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and Industrial P-V-F products combined but less than 50% in each category alone)	42
HVAC & Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and Industrial P-V-F products)	69
BY PRODUCT EMPHASIS AND SALES VOLUME SIZE:	
Plumbing Supplies & Equipment Firms:	
Sales Under $3,000,000	48
Sales $3,000,000 to $7,000,000	52
Sales $7,000,000 to $12,000,000	29
Sales Over $12,000,000	32

	Number of Reporting Firms
BY PRODUCT EMPHASIS AND SALES VOLUME SIZE (continued)	
Industrial Pipe, Valves and Fittings Firms:	
Sales Under $4,000,000	12
Sales $4,000,000 to $12,000,000	15
Sales Over $7,000,000	16
Plumbing Supplies & Equipment and Industrial Pipe, Valves and Fittings Firms:	
Sales Under $3,000,000	7
Sales $3,000,000 to $7,000,000	12
Sales Over $7,000,000	23
HVAC & Other Emphasis Firms:	
Sales Under $3,000,000	15
Sales $3,000,000 to $8,000,000	33
Sales Over $8,000,000	20
Sales Volume Not Specified	1
BY GEOGRAPHIC REGION:	
New England (CT, ME, MA, NH, RI, VT)	31
New York (excluding NYC)	18
Long Island and Metro NYC	3
Middle Atlantic (DE, Eastern PA, MD, NJ, DC)	35
East Central (IN, OH, Western PA, WV)	44
Southern (AL, FL, GA, KY, MS, NC SC, TN, VA)	37
Michigan (excluding Upper MI)	19
Metro Chicago and Northern IL	6
Mid-America (IA, Southern IL, KS, MN, MO, NE, ND, SD, Upper MI, WI)	54
Louisiana, Texas, New Mexico, Oklahoma and Arkansas	30
Rocky Mountain (CO, ID, MT, UT, WY)	10
Pacific Northwest (AK, OR, WA)	6
Northern California, Northern Nevada, and Hawaii	16
Pacific Southwest (AZ, Southern CA, Southern NV)	6

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken to assure data comparability within the limitations of accounting reporting procedures. However, the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. For those individuals interested in more statistical detail than is contained in this report (such as sample sizes and/or standard deviation by specific ratio), contact:

Industry Insights, Inc.
2564 Billingsley Road
Columbus, Ohio 43085
614/889-8284

Fiscal Year-Ends

It is somewhat interesting to take note of the pattern of fiscal year-end dates among firms in the industry. The table below shows that of the firms responding to the 1985 ASA survey, over half (52.4 percent), reported that their fiscal year follows the calendar year. Among the other 48.6 percent of firms responding to the survey, fiscal year-ending dates were fairly evenly distributed throughout the year.

Month of Fiscal Year-Ends

Month	Percentage of Companies
January	6.0%
February	8.9
March	8.6
April	2.2
May	0.6
June	1.9
July	1.3
August	1.6
September	5.4
October	4.4
November	4.8
December	52.4
Not Reported	1.9
Total	100.0%

Ratio Definitions and Sample Calculations

A primary purpose of the ASA Operating Performance Report of the P-H-C-P Wholesaler Industry is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Note: Those firms that participated in the ASA survey received, absolutely free, a confidential Individual Company Report. This report presents a company's own ratios and data already computed in a manner consistent with those appearing in the industry report, and displayed alongside the appropriate industry comparatives. As a result, participating companies received invaluable information about their own business performance without having to spend time and effort to make the calculations manually.

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Overall Performance			
• Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	$69,815 ÷ 1,072,599 = 6.5%	Overall financial performance from the owner's standpoint.
• Total Assets to Net Worth (X)	(23) Total Assets ÷ (27) Net Worth	$2,369,891 ÷ 1,072,599 = 2.2x	Setting policies concerning amount of debt vs. equity in the business.
• Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	$69,815 ÷ 2,369,891 = 2.9%	Overall financial performance from a management standpoint.
• Net Sales to Total Assets (X)	(1) Net Sales ÷ (23) Total Assets	$5,884,780 ÷ 2,369,891 = 2.5x	Asset management--productivity of total asset base.
• Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	$69,815 ÷ 5,884,780 = 1.2%	Margin management (gross margin and expenses)
• Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	$114,136 ÷ 2,369,891 = 4.8%	Overall financial performance from a management standpoint ignoring tax considerations.
• EBIT* to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	[$114,136 +13,092] ÷ 2,369,891 = 5.4%	Same as previous ratio but ignores interest expense (leverage, not operations related)
Sales Analysis			
• Percent Sales Change from prior year	[(1) Net Sales - (39) Previous Years Sales] ÷ (39) Previous Years Sales	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)	Indication of company growth. Caution should be used due to inflationary distortions.
Asset and Financial Management			
• Current Asset Turn (X)	(1) Net Sales ÷ (21) Total Current Assets	$5,884,780 ÷ 2,258,150 = 2.6x	Asset management - productivity of current asset base.
• Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	$1,297,292 ÷ 1,072,599 = 120.9%	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.
• Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	$520,042 ÷ 1,072,599 = 48.5%	A measure of the financial mix of the firm.
• Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	$2,258,150 ÷ 520,042 = 4.3X	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.
• Current Assets Less Inventory to Current Debt (X)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	[$2,258,150 - 983,840] ÷ 520,042 = 2.5x	Same as above ratio.
Transaction Data			
• Billing Lines Per Invoice	(45) Annual Billing Lines ÷ (44) Total No. Invoices	171,872 ÷ 21,484 = 8	Gives some indication of invoicing efficiency.
• Average Invoice Size ($)	(1)Net Sales ÷ (44) Total No. Invoices	$5,884,780 X .83 ÷ 21,484 = $227.35	Indicates the typical size of an invoice and thus add-on purchase efficiency.
• Average Billing Line ($)	(1)Net Sales ÷ (45) Annual Billing Lines	$5,884,780 X .83 ÷ 171,872 = $28.42	Indicates the size of a typical item billed.
Personnel Productivity			
• Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	$604,313 ÷ 5,884,780 = 10.3%	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store.
• Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	$234,303 ÷ 5,884,780 = 4.0%	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.
• Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%	Indicator of all personnel related costs.

*EBIT refers to "Earnings Before Interest and Taxes."

Ratio Definitions and Sample Calculations

Performance Measure	Method of Computation () Indicates Survey Line #	Computational Example: Sample Co.	Suggested Uses
Personnel Productivity (cont)			
• Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	$604,313 ÷ 1,492,481 = 40.5%	Indicates the portion of gross profits that are used in payroll costs.
• Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	$234,303 ÷ 1,492,481 = 15.7%	Same as above but relative to fringe benefits.
• Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%	Indicator of all personnel related costs that are used in gross margin production.
Inventory Management			
• Cost of Whse Goods Sold to Average Inventory (x)	[(34) Total Whse Sales - (37) Whse Gross Profit] ÷ [((19) Inventory + (40) Previous Years Inventory) ÷ 2]	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x	Measure of inventory productivity. Compare to industry, over time or product categories.
• No. of Days Average Inventory Carried	[((19) Inventory + (40) Previous Years Inventory) ÷ 2] ÷ [((34) Whse Sales-(37) Whse Gross Profit) ÷ 365]	[($983,840 + 992,313) ÷ 2] ÷ [($5,240,136-1,396,217) ÷ 365] = 94 days	Similar in value to above measure. Shows how quickly inventory is moving.
• Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (40) Previous Years Inventory] ÷ 2]	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x	Shows how many times you were able to "turn over" your inventory.
• Whse Gross Margin Return on Average Inventory (%)	(37) Whse Gross Profit ÷ [((19) Inventory + (40) Previous Years Inventory) ÷ 2]	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%	Overall measure of inventory, profitability and productivity. Combines margin and turnover.
• Turn & Earn Profitability Index (%)	[((34) Whse Sales-(37) Whse Gross Profit) ÷ ((19) Inventory + (40) Previous Years Inventory) ÷ 2] X [((37) Whse Gross Profit ÷ (34) Whse Sales) X 100]	[($5,240,136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] X [(1,396,217 ÷ 5,240,136) X 100] = 103.9	Another return-on-investment measure which combines margin and turnover.
Accounts Receivable			
• Average Collection Period	(18) Accounts & Notes Receivable (Net) ÷ [(1) Net Sales X (1.0 - (44) % Cash Sales) ÷ 365]	1,096,734 ÷ [5,884,780 X (1.0 - .17) ÷ 365] = 82 days	Measuring effectiveness of various collection policies. Compare to industry and over time.
• Gross Margin Return on Receivables (%)	[((3) Gross Profit ÷ (1) Net Sales) X 100] X [365 ÷ Average Collection Period]	[(1,492,481 ÷ 5,884,780) X 100] X [365 ÷ 82] = 112.9%	Indicator of how much gross margin dollars are being generated on your accounts receivables.
Operating Expense Control			
• Total Operating Expense to Net Sales (%)	(10) Total Operating Expense ÷ (1) Net Sales	$1,323,621 ÷ 5,884,780 = 22.5%	Conventional measure used for controlling total operating costs.
• Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	$1,323,621 ÷ 1,492,481 = 88.7%	A somewhat more specific measure than the one above.
• Non-People Expense to Net Sales (%)	[(10) Total Operaging Expense - ((29) Payroll + (30) Fringes)] ÷ (1) Net Sales	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%	A measure for controlling all operating costs except personnel costs.
• Non-People Expense to Gross Margin (%)	[(10) Total Operating Expense - ((29) Payroll + (30) Fringes)] ÷ (3) Gross Profit	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5	Same as above but somewhat finer.
Interest Expense			
• Interest Expense to Net Sales (%)	(46) Interest Expense ÷ (1) Net Sales	$13,092 ÷ 5,884,780 = 0.2%	An indicator of how much debt financing is costing the firm relative to sales.
• Times Interest Earned (X)	[(14) Net Profit Before Taxes + (46) Interest] ÷ (46) Interest	[$114,136 + 13,092] ÷ 13,092 = 9.7x	Indicates the ease in which your company can pay interest costs out of earnings.

CODE NUMBER

CONFIDENTIAL
AMERICAN SUPPLY ASSOCIATION

1985 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1984 Financial Results)

With your help, the 1985 ASA Operating Performance Survey (of 1984 financial information) promises to be the best ever. Building upon the format and content improvements of the past few years, this year's study will also provide more trend information as well as other features. Most importantly, however, a confidential Individual Company Report of your own firm's financial ratios displayed alongside the appropriate industry comparatives will be available to you **at no charge** just for participating in the study. And . . . for the first time ever, the Individual Company Report will include certain **three year trend information.**

To participate and receive this invaluable free information about your firm, please take the time to fill in the data requested on this Survey Form using the following guidelines:

(1) Enter figures from your completed fiscal year which ended nearest to December 31, 1984. **Full year data** is required. Financial data need **not** be audited.

(2) Dollar amounts should be rounded to the nearest dollar. Eliminate "cents." Columns labeled "Code #" are for internal use only and should be ignored.

(3) Please report on the basis of your total firm rather than for individual branches.

While it is not necessary to fill in every line, be as complete as possible to assure that your Individual Company Report will be much more useful. *Or, if you prefer, just fill in the information on pages 2 and 4 and forward your "Income Statement and Balance Sheet" financials (or your most recent annual "Income Tax Form") for the most recent 12 month period along with this Survey Form.*

Please send your response
in the enclosed postage-paid, self-addressed envelope before
May 31, 1985 to:

Industry Insights, Inc. • P.O. Box 155 • Dublin, Ohio 43017-0155 • (614) 889-8284

Indicate below to whom any questions regarding this Form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon to assure confidentiality.

Name (Questions) SAMPLE COMPANY Phone (____) _____

Name (Report) _____

Company _____

CODE NUMBER

Address _____

City _____ State _____ Zip _____

CONFIDENTIAL

AMERICAN SUPPLY ASSOCIATION

1985 ANNUAL OPERATING PERFORMANCE SURVEY

(Based on 1984 Financial Results)

CLASSIFICATION DATA

Ending 12 month period upon which this data is based. (1) 02 / 31 / 84 (month / day / year)

Number of locations (including headquarters) which are included in the data reflected on this Survey Form. (Do not submit separate forms for branches.)

(2) 2

Regional Identification: Check (√) only one of the boxes below:

		Territory	Regional Association Affiliate
	1) ☐	CT, ME, MA, NH, RI, VT	PHWNE
	2) ☐	NY (excluding NYC)	NYSPHW
	3) ☐	Long Island and Metro NYC	JCA
	4) ☐	DE, E.PA, MD, NJ, Wa.D.C.	MAWA
	5) ☒	IN, OH, W.PA, WV	CWA
	6) ☐	AL, FL, GA, KY, MS, NC, SC, TN, VA	SWA
	7) ☐	Michigan (excluding Upper MI)	MAD
(3)	8) ☐	Metro Chicago, Northern IL	
	9) ☐	IA, KS, MN, MO, NE, ND, SD, Upper MI, WI, Southern IL	MASA
	10) ☐	LA, TX, NM, OK, AR	WDA
	11) ☐	Rocky Mountain (CO, ID, MT, UT, WY)	
	12) ☐	Pacific NW (AK, OR, WA)	
	13) ☐	HI, N.CA, N.NV	NCSA
	14) ☐	AZ, S.CA, S.NV	PSDA

Product Sales Mix – Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary):

(4) 30 Plumbing Supplies & Equipment, Including Plumbing Pipe, Valves & Fittings.

(5) _____ Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment.

(6) 30 Industrial P–V–F (Industrial Pipe, Valves & Fittings).

(7) 30 Other Industrial Supplies & Equipment.

(8) 10 Other (Please specify: _____).

(9) 100% Total

Did your firm participate in this study last year? ☒ Yes ☐ No (87)

If yes, how many consectutive years have you participated? 3 (88)

INCOME STATEMENT ITEMS

LINE NO.		CODE #	AMOUNT IN DOLLARS (Omit Cents)
1	Net Sales (Include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales taxes.)	(10)	$ 5,884,780
2	Cost of Goods Sold (Include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases.) (FIFO basis)*	(11)	$ 4,392,299
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO basis)	(12)	$ 1,492,481
4	Selling Expenses (refer to definition sheet)	(13)	$ 280,652
5	Delivery Expenses (refer to definition sheet)	(14)	$ 177,206
6	Warehouse Expenses (refer to definition sheet)	(15)	$ 197,090
7	General & Administrative Expenses (refer to definition sheet)	(16)	$ 562,999
8	Occupancy Expenses (refer to definition sheet)	(17)	$ 74,396
9	Other Operating Expenses (refer to definition sheet)	(18)	$ 31,278
10	Total Operating Expenses (Sum of Lines 4 thru 9)***	(19)	$ 1,323,621
11	Net Operating Profit (Lines 3 minus Line 10) (FIFO)	(20)	$ 168,860
12	Non-Operating Income (Include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	(21)	$ 34,838
13	Non-Operating Expenses (Include cash discounts allowed on sales, interest paid, losses on sale of fixed assets, and other non-operating expenses or losses not already included above)	(22)	$ 89,562
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	(23)	$ 114,136
15	Income Taxes (Federal, State and City)	(24)	$ 44,321
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	(25)	$ 69,815

BALANCE SHEET ITEMS

17	Cash (Includes savings accounts, CD's and other temporary investments)	(26)	$ 159,182
18	Accounts & Notes Receivable, Trade (Net)	(27)	$ 1,096,734
19	Inventory (FIFO basis)	(28)	$ 983,840
20	Other Current Assets (Such as prepaid items, supplies, etc.)	(29)	$ 18,394
21	Total Current Assets (Sum of Lines 17 thru 20)	(30)	$ 2,258,150
22	All Other Assets (Any assets not included above)	(31)	$ 111,740
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO basis)	(32)	$ 2,369,891
24	Total Current Liabilities (Due in less than 1 year)	(33)	$ 520,042
25	Total Long-Term Liabilities (Due in more than 1 year)	(34)	$ 777,250
26	Total Liabilities (Sum of Lines 24 and 25)	(35)	$ 1,297,292
27	Total Net Worth (or Owner's Equity) (FIFO)**	(36)	$ 1,072,599
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	(37)	$ 2,369,891

*If on LIFO, subtract your "Annual additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.
**If on LIFO, add your total LIFO Reserve to your book net worth to get your FIFO net worth.
***If you are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying separate management salaries.

COMPENSATION DATA

LINE NO.		CODE #	AMOUNT
29	Total Payroll Expenses (Include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	(38)	$ 604,313
30	Total of Fringe Benefit Payments and Payroll Taxes (Include company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	(39)	$ 234,303
31	Gross Income of the Highest Paid Employee, Including Owners (refer to the person's W-2 statement gross income – as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes)	(40)	$ 50,000
32	Gross Income (as above) of the Second Highest Paid Employee (including Owners)	(41)	$ 45,000

WAREHOUSE AND DIRECT SALES DATA

33	Dollar Amount of Direct (Drop) Shipment Sales	(42)	$ 644,644
34	Dollar Amount of Warehouse Sales (Counter and Delivery)	(45)	$ 5,240,136
35	Total Sales (Sum of Line 33 and 34) (Equal to Line 1)	(46)	$ 5,884,780
36	Dollar Amount of Gross Profit on Direct (Drop) Shipments	(47)	$ 96,264
37	Dollar Amount of Gross Profit on Warehouse Sales (Report of FIFO basis)	(48)	$ 1,396,217
38	Total FIFO Gross Profit (Sum of Lines 36 and 37) (Equal to Line 3)	(49)	$ 1,492,481

ADDITIONAL DATA (VERY IMPORTANT)

39	Previous Year's Net Sales	(50)	$ 6,002,478
40	Previous Year's Ending Inventory (FIFO basis)	(51)	$ 992,313
41	Average Number of Employees During 1984 (Include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time people each working 12 months would be counted as one employee)	(52)	# 21
42	Percent of Total 1984 Sales That Were Made for Cash (estimate if necessary)	(53)	17 %
43	Were you on a LIFO inventory valuation system during 1984?	(54)	Yes ☐ 1 No ☒ 2
44	Total Number of Customer Invoices During the Year	(55)	# 21,484
45	Annual # of Billing Lines on Customer Invoices (estimate if necessary)	(56)	# 171,872
46	Interest Paid in 1984 (Also include this amount in Line 13)	(57)	$ 13,092

DETAIL OF ACCOUNTS RECEIVABLE (END OF YEAR)

LINE NO.		CODE #	NUMBER OF ACCOUNTS	CODE #	AMOUNT IN DOLLARS
47	Current (0 - 30 Days Outstanding)	(58)	# 257	(64)	$ 571,339
48	31 - 60 Days Outstanding	(59)	# 47	(65)	$ 154,748
49	61 - 90 Days Outstanding	(60)	# 17	(66)	$ 189,310
50	Over 90 Days Outstanding	(61)	# 28	(67)	$ 181,337
51	Total Accounts Receivable (Sum of Lines 47 thru 50) (Equal to Line 18)	(63)	# 349	(69)	$ 1,096,734

AMERICAN SUPPLY ASSOCIATION

DESCRIPTION OF OPERATING EXPENSE CATEGORIES

Selling Expenses

Selling executive salaries, commissions and bonuses; outside and inside salespeople salaries, commissions and bonuses; other selling personnel (clerical, secretarial and order takers) salaries, bonuses and wages; selling personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

Selling related: supplies; stationery; printing; automobile expense; travel and entertainment; dues and membership; conventions and meetings; education and training; advertising; promotions; brochures; showrooms; merchandise shows; miscellaneous.

Delivery Expenses

Delivery supervisor(s) salaries and bonuses; other delivery personnel (clerical, secretarial, drivers) salaries, bonuses and wages; delivery personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Delivery related: supplies; gas and oil; tires; other automotive supplies; towel and uniform services; trucks, automobiles and other equipment repairs and maintenance; insurance (automobiles and trucks); licenses; equipment rental; trucks, automobiles and other equipment depreciation; dues and memberships; education and training; travel and entertainment; delivery services (cartage, freight, express); miscellaneous.

Warehouse Expenses

Warehouse supervisor salaries and bonuses; other warehouse personnel (clerical, secretarial, laborers, and other) salaries, bonuses and wages; warehouse personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Warehouse related: supplies; travel and uniform services; equipment repairs and maintenance; insurance (inventory); equipment rental and depreciation; education and training; travel and entertainment; miscellaneous.

General and Administrative Expenses

Executive salaries and bonuses; supervisor salaries and bonuses; other salaries and bonuses (including buyers); general and administrative personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

General and administrative related expenses (including purchasing expenses): supplies; stationery and printing; travel and uniform services; telephone and telegraph; postage; automobiles and other equipment repairs, maintenance, and depreciation; insurance (property, automotive, etc.); licenses; equipment and automobile rental; furniture and fixtures depreciation; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; employment advertising; collection expense; cash over or short; donations; accounting services; legal services; other services; directors fees; miscellaneous. Also include bad debts written off.

Occupancy Expenses

Facilities management supervisor salaries and bonuses; janitor and maintenance personnel wages; occupancy personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Janitor and maintenance supplies; building and building equipment repairs and maintenance; janitor service; building and building equipment insurance; real estate taxes; rent (if applicable); building equipment rental; utilities (power, light, water, heat); building and building equipment depreciation (if applicable); miscellaneous.

Other Operating Expenses

All operating expenses not specified above.